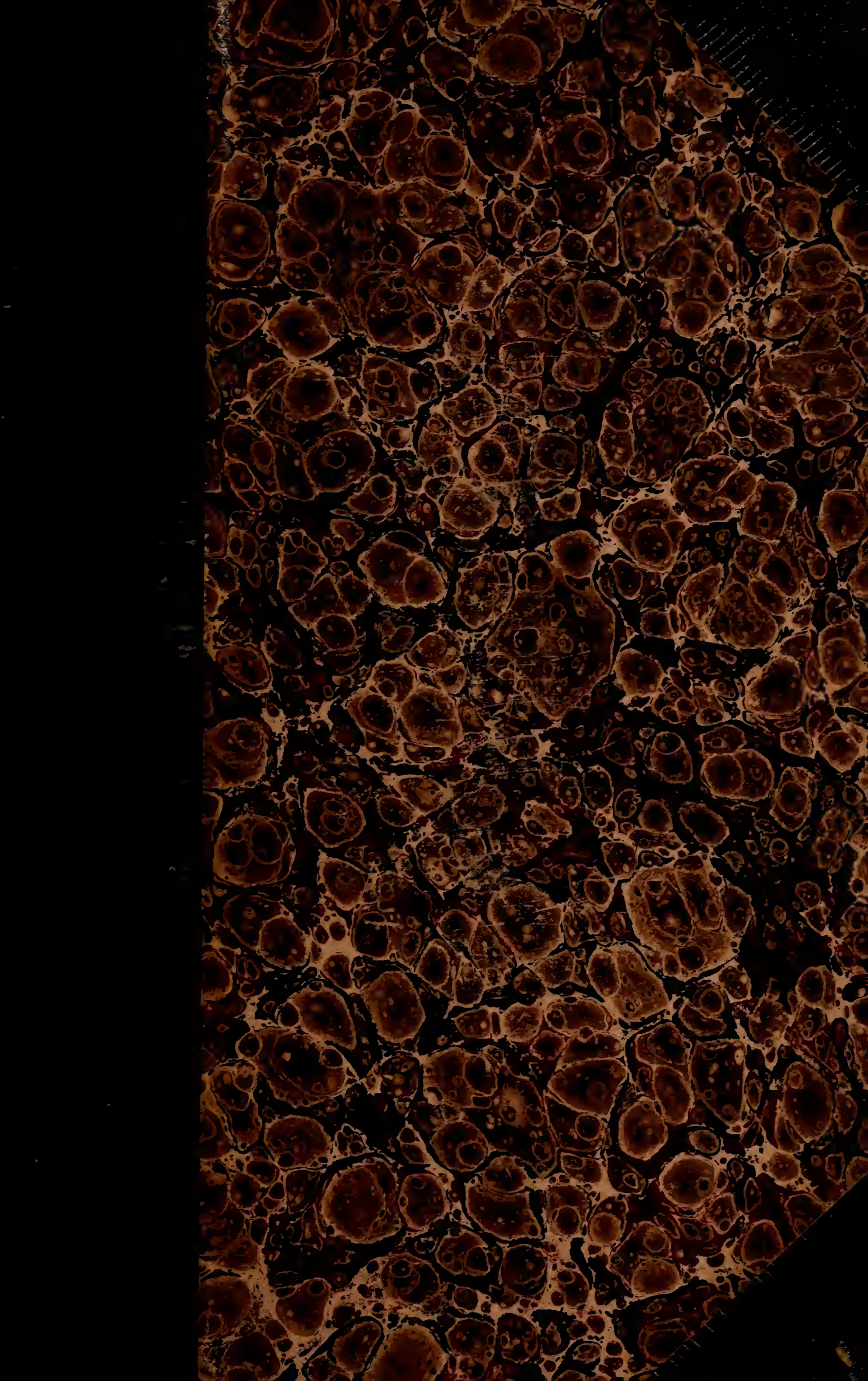

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# BUFFALO MEDICAL AND SURGICAL JOURNAL.

Established 1845 by AUSTIN FLINT, M. D.

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## VOL. XXXIV.

*AUGUST, 1894, TO JULY, 1895.*

BUFFALO.

1895.

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Buffalo Medical and Surgical Journal

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# Original Address.

## ADDRESS TO THE GRADUATES AT THE ELEVENTH ANNUAL COMMENCEMENT OF NIAGARA UNIVERSITY MEDICAL COLLEGE.[1]

By HARLOW C. CURTISS, A. M.,
Professor of Medical Jurisprudence.

We have just completed the Columbian year with all its pomp and ceremony; with all the eloquence of the gifted speakers of America; with all the wonderful creations of American inventive genius; with the triumphs of our mechanics, engineers and electricians, we have emphasized the rapid progress made in the development of skilled and scientific labor, in which we lead the world. As by a magician's wand, there arose on the shores of our inland ocean, suddenly, as in a night, that marvelous White City, whose entrancing beauty—apparently not of this world, but in reality a grand, a concentrated expression of the artistic accomplishments of American landscape engineering, the architect's pencil, the sculptor's chisel—dazzled the wondering eyes of the men of all nations, who hurried thither from every quarter of the globe to exhibit in those magic storehouses the fruits of their industry, their creations of art, their achievements in science.

Truly, there at Chicago the nations vied with each other to show to the world, each for itself, what its own people had accomplished in the strife to push ever onward the steady march of Human Progress. It was as if all the world had taken for its motto the words "*Religio, Cultura, Mores.*" How much mankind has accomplished under the inspiration of these three ideals: How much have we failed: How much more must we strive in the future. But, suddenly as a dream, the dazzling, beautiful

1. Delivered at the Academy of Music, Buffalo, May 9, 1894.

White City has vanished ; the men of all nations have scattered themselves throughout the world ; they still must continue to struggle on in the round of daily tasks, all through the unnumbered cycles of time, until at last "the trump shall sound," and then, as we were in this our Columbian year, dazzled by the magic beauty of our White City by the Lake, then to our almost blinded sight may be unfolded the glories of the beatific vision, then we shall fully realize how feeble have been our best efforts, how small their results. But we shall rejoice if we have done our humble best in a lifelong struggle to perfect ourselves in "*Religio, Cultura, Mores.*" May it then be granted to each one of us to know that the world is not any worse for our having lived in it.

During this our Columbian year we have given much of our attention to the times in which our great discoverer lived, the conditions that moulded him in his development, the motives and influences that impelled him to continue in his daring advance onward through the world of unknown waters to the land of his dreams. Now, let us, as men interested in humanity, in medicine, the healing art, consider the conditions which necessitated the establishment of this our benign mother, the Medical Department of Niagara University, the progress that has been made by her, and the motives which inspire the carrying on of her work.

Niagara University was founded by the priests of the congregation of the mission in the year 1856, and in the year 1863 was incorporated by the legislature of the State of New York under the name of the Seminary of Our Lady of Angels. It was erected in 1883 into a university, under its present title, by the regents of the University of the State of New York, with the full powers and authority of a university. The college of arts of the university is situated on the highest point of the Monteagle Ridge, at Niagara Falls, a location unsurpassed in beauty and grandeur ; beautiful views are seen at various points of the college grounds ; from the great waterfall the course of the river can be followed over the wild rapids tumbling through the narrow green-clad gorge, on and on until we see in the distance the deep blue of Lake Ontario. Here, immersed in the rest and quiet of the virgin forest, with the beauties of Nature spread before them by a bountiful Creator, the men of Niagara cannot fail to draw in with each breath deep draughts from the fountain of knowledge established by the reverend fathers and prove themselves faithful to the beautiful motto of the university, *Religio, Mores, Cultura.*

In the year 1883, the authorities of the University, realizing the needs of the great city at the upper end of their beautiful Niagara, and feeling the great necessity of a complete and more thorough education for the medical men of their vicinage than was then afforded by the various medical faculties of the day, determined to establish in Buffalo a school of medicine, which should afford a complete and thorough education in that science and art to cover a course of at least three years, instead of a course of but two years, the usual length of the course prescribed by most of the medical faculties in the United States at that time. So, calling to their assistance many of the leading medical men of Buffalo and the vicinity, men unsurpassed by any in the depth of their learning, the extent of their accomplishments, the proficiency and skill of their practice, the wideness and honor of their reputations, they founded in that year the Medical Department of Niagara University.

The medical faculty at once established a course in medicine covering a period of three years, and has ever since carried on the work of the medical school with great thoroughness. So much so, that now, at the end of some eleven years from the inception of the school, the Niagara graduates in medicine are everywhere found in the front rank of their profession. The wisdom of the founders of the medical school in insisting upon the three years' course, has been most forcibly demonstrated by the fact that the University of the State of New York has only recently insisted upon a three years' course being followed by the candidates for the degree of Doctor of Medicine in all the medical schools of the state. [This, in obedience to a law that the Medical Society of the State of New York strove, for ten years, to establish.—Editor.] It is the desire of every member of the medical faculty of Niagara University (unless I am greatly in error) that the course in medicine shall be further lengthened to four years. And this, I doubt not, will be done at some convenient time in the near future.

Here, in America, we have presented to us special needs and conditions which are so broad and widespread in their ramifications that they concern all classes of society, and influence and affect the relations and accomplishments of the men of every calling in the community. The absence of an hereditary superior class, the necessity of building from the foundations in the whole social fabric, the prevalence of intelligence and education, the restlessness of ambition and the strife for betterment, the sense of

personal worth, contempt of tradition and conventionalities ; self reliance, the adaptability to circumstances and the ability to conform circumstances to desires ; the stimulating climate, fertility of the soil ; the richness of the rewards secured by effort in every department of human labor, the regard for learning, the prevalent tone of religious thought, the pride of citizenship, the atmosphere of freedom, civic pride ; the mingling of races and ideas ; these, among other influences, have contributed largely to the development in the United States of a special and peculiar type of manhood ; to a complex condition of the social community ; to special and peculiar influences and needs, which we have in common with no other people. Among such people, there being always a close relationship between the character of the medical advisers of a people and the character of the people themselves, it is inevitable that there should be a special type of medical man ; that our system of medicine and the laws governing it should materially differ from those prevalent elsewhere in the civilized world. Here the dominant ideas of liberty (often degenerating down to the level of unrestrained license) have had a direct and powerful influence upon our system of medicine.

In many of our states the practice of medicine is still thrown open to any man who chooses to hold himself out as a "Doctor," without any special license to practise, without any special qualifications ; and the confiding public is forced to choose and sift out for itself, often at the expense of the public health, the good from the bad, the quack and the charlatan from the medical man of sound professional skill and attainments. The popular theory is that each individual is free to choose for himself his own system of medicine as well as his own religion. Governmental paternalism, which tries to protect each individual from the hollow and false, has no tolerance in the minds of our liberty-loving people. Individualism in medicine, as in everything else, has full swing, and the needs of the social community are not considered at all in comparison with the right of the individual to choose for himself. There is no vagary so wild, and no pretension so preposterous, but that it shall receive a respectful hearing with our American people. But although with us a greater proportionate number of individuals have devoted themselves to the art of healing than among the people of any other nation, the good sense of our people has constantly been effective in sifting out the good from the bad, sterling worth from its imitation, reality from hollow pretense,

and the standard of professional attainments, required by public opinion, of medical practitioners, has steadily advanced, both in general culture and in technical knowledge. Also, of late there has steadily grown up a feeling that the commonwealth should give to each individual member of the community the protection of governmental guaranty that every person who claims to be a healer of disease, is really qualified as such ; particularly is this so in the State of New York, where a state license to practise is now required from every physician, and where state examinations at the end of a three years' course of study in a school of medicine are required before the license is granted.

The demands of the present day as to the training of him who would practise the art of healing are multiplying greatly ; the interests at stake are too great to allow the neglect of any possible means of useful knowledge in the various branches of science and learning. The complexity, abstruseness and widespreading relations of the various branches of knowledge necessary to a well-learned medical man are such, that only well-trained minds should essay the study of medicine. A full course of training in such preliminary studies as tend to develop the reasoning faculties and powers of observation, and to equip the mind with a store of general knowledge, is now required by the intelligent opinion of our American public of each would-be medical man before he begins the study of his profession ; nay, I might say further, that experience demands it. The ability to master the principles and to achieve skill in the practice of the medicine of today requires in the highest degree a trained eye, a trained mind and a trained hand. Each year witnesses in this country a marked increase in the facilities for obtaining this necessary training ; no men have been more ready to realize its importance, and to impress on the general public its necessity, than the great body of medical men acting as individuals, and by means of their organized medical societies. The advance in medical education has been steadily going on, and is still in progress.

Niagara has always led in this advance, and she will never be found backward in the effort to place her graduates in the very foreground of medical progress and enlightenment. She has ever before her the principles set forth in the motto *Religio, Mores, Cultura.* Her students are required to bring with them at the very outset minds already well disciplined in the study of the humanities and the sciences. She has already multiplied, systematized

and lengthened the branches of her medical course. She has well-equipped laboratories and a dispensary ; and the well-furnished hospitals which are under the care of the members of her faculty afford to her students opportunities for clinical training unexceled in the United States ; so that, as the only non-medical member of her medical faculty, the speaker can with propriety say that within her doors can be had a practical and theoretical training such as should place her graduates at the forefront of the medical profession. The friends of the college will not, however, simply be pleased with what has been done in the past, but they will ever strive to develop her resources ; to accelerate her progress ; to widen her influences ; she will always strive to furnish her students the best and most comprehensive training ; a high ideal of what a medical man should be ; a keen appreciation of the value of positive knowledge and trained skill ; a steady elevation to the highest types of training and attainment.

The student at Niagara, if he graduates, graduates a well-trained and accomplished physician, worthy to wear the hood of the doctor of medicine, and to assume the awful responsibility of the care of human life. In the days of old (as is now the case in many of the universities of Europe) it was required of him who aspired to wear the hood of the doctor, either in law, theology or medicine, that he should enter the lists of controversy with other doctors, and prove himself worthy of the hood before he could receive that honor. Those who this evening are to receive from the hands of our Rt. Rev. Chancellor the hood of the doctor of medicine are champions in a like contest ; they have heard and answered successfully the questions of many doctors, who have tested their knowledge and certified that they are worthy to wear the hood of red and blue—red, the color of life, of love and of charity ; and blue, the color of truth and mercy.

Gentlemen of the graduating class, we gladly greet you by your new titles of doctors of medicine. May your lives always be distinguished by love and charity, by truth and mercy, as your garb is marked by the red and the blue of your doctors' hood. During the three long years of your course in medicine you have been courageous, determined and diligent. You have laid well the foundations of knowledge upon which you must strive to build all the days of your life. Never forget that medicine is a progressive science and that you can keep up with the progress and advance-

ment of medical science only by constant, hard study, for medicine, like the law, is a jealous mistress.

The days of your education as pupils under instruction are now over. You are now fresh from the class room and the laboratory, and your diplomas today seem very broad with your list of accomplishments. They will begin to shrink from this very hour. Your acquaintance with the various branches of your studies is much greater than it will be in a year from now, and it will probably be still less two years hence, and when you shall be gray-haired practitioners, the progress of medical knowledge will probably have far outrun the various text-books of your college course. "Science," says Doctor Holmes, "is a great traveler, and wears her shoes out very fast," as might be expected. But do not infer that your teachers were in fault when they furnished you with mental stores, likely in a few years to lose their place in your memory. There are many things which we can afford to forget, which it was well to learn. Your mental condition is not the same as if you had never known what you now try in vain to recall. There is a perpetual metempsychosis of thought, and the knowledge of today finds a soil in the forgotten facts of yesterday. When you come to handle life and death as your daily business, your memory will of itself bid good-bye to such knowledge as is not wanted. Your education has, however, been very largely a practical one ; medicine and surgery you have not only studied in books, but at the bedside and the operating table.

It has been your special advantage that you have been afforded the opportunity of seeing much disease in your three years here, and of seeing many cases of the same kind of disease brought together ; for it must be confessed that the great hospitals, infirmaries and dispensaries of a great city like ours are the true centers of medical education. Your minds are now stored with a vast amount of skill and wisdom which you have learned from your various medical instructors, and you would probably know just what to do to meet any one of the many emergencies which confront the physician and the surgeon. You could probably pass a better medical examination today than any one of your instructors; and, however humble-minded you are, time and experience only can teach you the limitations of your knowledge. For the knowledge that you now possess will be a different thing after long habit has made it a part of yourself. Experience means the knowledge gained by long and constant trial, and "an expert," it has been

well said, "is one who has been in the habit of trying." "Book-knowledge, lecture-knowledge, examination-knowledge," says Doctor Holmes, "are all in the brain ; but work knowledge is not only in the brain, it is in the senses, in the muscles, in the ganglia of the sympathetic nerves. The young man knows the rules, but the old man knows the exceptions ; the young man knows his patient, but the old man knows also his patient's family, dead and alive, up and down for generations." The old practitioner has the experience, while the young man has drawn his learning from the latest existing condition of knowledge, and he keeps step with the march of progress much more easily than his seniors.

Do you, gentlemen, in the spare moments of your early years of practice, and, in fact, throughout your whole professional life, read and study and familiarize yourselves with all the latest achievements of medical science and experience will, of itself, come to you ; so that if you are true to yourselves, you will go on improving as medical men with each year of your lives. You are now about to enter into relations with the public ; to expend your knowledge and skill for its benefit, and to derive your support from the rewards of your labor. You must, first of all, get the confidence of the community, and there is but one way of doing this, that is, *deserve* it. But to deserve it in full measure, you must unite in yourself many excellencies, natural and acquired ; you cannot do better than begin by conforming to the standard of the ancient oath of Hippocrates. Enter your patient's house with the sole purpose of doing him good ; and so conduct yourselves as to avoid the very appearance of evil. Never betray confidence reposed in you ; avoid all that is mean and low ; shun narrowmindedness. Have the genuine good manners that arise from cheerfulness of disposition and cleanness of life. The three graces of manners are gentleness, cheerfulness and urbanity. Cultivate them. Good manners are a part of good morals, and more failures in life have been caused by defects in morals than by defects in intellect. But, above all, conduct yourselves as gentlemen. "What is it," asks Thackery, "to be a gentleman ? Is it to have lofty aims, to lead a pure life, to keep your honor virgin, to have the esteem of your fellow-citizens and the love of your fireside, to bear good fortune meekly, to suffer evil with constancy, and through evil or good to maintain truth always? Show me the happy man whose life exhibits these qualities, and him we will salute as gentleman, whatever his rank may be." If your lives, gentle-

men, exhibit those qualities, you will need no code of medical ethics.

Endeavor to realize always your great responsibilities; and, following the steps of the Great Physician, let your lives bestow upon those who are in need, love, charity, kindness, mercy, truth. Whether you have succeeded or failed, time will indicate, but eternity will decide.

Gentlemen of the graduating class, the intercourse of teacher and student between us all is now ended. We bid you welcome as medical practitioners; the world lies open before you; old Niagara will soon be to you but a pleasant memory; may that memory linger on, down "into the still evening of your lives."

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# Original Communications.

## DIPHTHERIA: HOW IS IT PROPAGATED?[1]

By G. W. GOLER, M. D., Rochester, N. Y.,
Medical Inspector, Rochester Health Department.

In this paper I intend to confine myself to a discussion of those means which seem to operate in propagating diphtheria.

In a report to the health board of this city, based upon an examination of the age, sex, school, occupation, milk supply and sanitary conditions of the dwelling of each of 100 patients with diphtheria, the following causes were found to be mainly responsible for the spread of this disease: (1) Gross defects in the plumbing and drainage (both house and subsoil) within and beneath the house. (2) Contact, either direct or indirect. (3) Contact through the milk supply.

One hundred cases of diphtheria were reported in seventy-four dwellings with a mortality of twenty-three. Fifty-one, or 69 per cent., of these seventy-four dwellings were in bad sanitary condition, in eighteen, or 23 per cent., no gross defects could be found and in five, or 6.5 per cent., the illness was found to have arisen after contact with persons infected with the disease.

Diphtheria has long been associated with bad sanitary surroundings, open sewers, defective drains, water closets and urinals, within or near dwellings, because, as has lately been demonstrated,

1. Read before the Medical Society of the County of Monroe, June 6, 1894.

in the albuminoid refuse which collects about such places bacillus diphtheria finds food, heat and moisture essential to its growth and multiplication. When to bad household sanitation is added the inadequate provision for subsoil drainage that obtains in many of our urban dwellings, we have those conditions which predispose to diphtheria by lowering the vitality of persons who find homes in such dwellings, so producing a favorable soil upon which diphtheria bacilli may be received and grow.

A causative relation between diphtheria and gross sanitary defects about dwellings has not until recently been shown to exist. Statistics from reports of the Local Government Board's health officer at London, in 1891, show that of fifty different epidemics of diphtheria in England, only four could be traced to direct contagion. The rest were all connected with foul cess-pools, deficient drainage and sewerage, and the proximity of dirty animals and decomposing organic matter.

Convincing evidence of the relation between diphtheria and unsanitary surroundings could not then be furnished, because, until lately, positive experimental proof was lacking that bacillus diphtheria occurred in or about houses where diphtheria was found. Recently L. Fisher, of New York, made cultures from eighty-five traps in tenement houses; forty-five had to be eliminated because of accident, leaving forty examinations entirely reliable. Twenty of these were negative, twelve yielded pathogenic bacteria, eight more pathogenic microörganisms, chiefly feces bacilli, which could not be differentiated. Some of the pathogenic cultures yielded diphtheria bacilli.

The results of these experiments in discovering diphtheria bacilli in a great number of cases are not such as to awaken intense enthusiasm. The work, however, must be looked upon as a good beginning in a novel field of investigation, the results of which will doubtless show just what part bad plumbing may play in spreading diphtheria.

A second influence that contributes to the spread of diphtheria is contact, either directly with a patient in an atmosphere more or less charged with contagion, or indirectly by means of anything containing diphtheria bacilli—table utensils, milk, drinking cups, pencils, etc., that might be conveyed to the mouth. Clothing, bed linen, articles of furniture, on which germ-laden dust may have lodged, all remain sources of danger for weeks or months after an illness from diphtheria has terminated. The disease has been

traced to an old swab which was laid away in a bureau drawer. Several years before the swab had been used upon the throat of a child that died of diphtheria.

In a European town diphtheria became epidemic after the bodies of several persons who died of diphtheria had been exhumed for reburial. Other cases might be cited where diphtheria has been traced to indirect contact, but all sources of error were not eliminated and all lack the weight of bacteriological proof in their support.

A part of this question of contact which most interests us is this : When a patient apparently recovers from diphtheria, when he has been newly bathed, his clothing and bed linen thoroughly cleaned, aired and fumigated after the most approved plan, how long after this period is he capable of transmitting the disease to others ? Four years ago Klein, in England, Roux and Yersn, in France, found diphtheria bacilli in the throats of patients from a few days to two weeks after recovery was thought to have been complete. The New York City board of health, through its pathologist, Dr. Herman Biggs, took up this line of investigation last year. Four hundred and fifty cases of diphtheria were subjected to frequent bacteriological examination. In 245 of these 450 cases the diphtheria bacilli disappeared within three days after complete separation of the false membrane ; in 160 cases the diphtheria bacilli persisted for a longer time—namely, in 103 cases for seven days, in thirty-four cases for twelve days, in sixteen cases for fifteen days, in four cases for three weeks, and in three cases for five weeks after the time when the exudation had completely disappeared from the upper air-passages.

Dr. Biggs says :

> In many of these cases the patients were apparently well many days before the infectious agent had disappeared from the throat. These results show that in a considerable proportion of cases, persons who have had diphtheria continue to carry the germs of the disease in their throats for many days after all signs of the disease have disappeared. No doubt the disease is largely disseminated by these persons who are apparently well and who mingle with others while their throat secretions still contain the diphtheria bacilli.

These are significant facts. They call for a reorganization of our quarantine and disinfection regulations and the substitution of laws for the prevention of diphtheria similar to those now in force in New York City. The New York board of health has adopted a

rule that no person shall be considered free from diphtheria until a bacteriological examination shall have proven the absence of diphtheria bacilli from the throat. Until by means of such an examination the throat is proven to be free from diphtheria bacilli, quarantine will be enforced and disinfection will not be performed by the department.

These experiments and the action of the New York board have an important bearing upon the occurrence of diphtheria among school children. If, as has been found by careful investigations, diphtheria bacilli may and often do persist for days after all membrane has disappeared from the throat, we can understand how children returning to school soon after recovering from diphtheria may carry the germs, not alone in their clothing, but in their throats as well. School children carry so many foreign substances to their lips—pencils, pens, paper wads, drinking cups, etc., that in this new light it is not difficult to understand how contagion may be transmitted from child to child. Thus, in a school district where diphtheria breaks out, a number of children may become carriers of the disease, even though quarantine has been strictly enforced for the prescribed length of time and disinfection carried out according to the rules of health departments in most cities.

To show how diphtheria may be carried among school children and the subtile means by which it may be transmitted, the following is deemed important: Twenty-three households in one primary school district have been scourged by diphtheria during the present school year, while in a portion of the city immediately adjoining the district and three times larger, the number of cases was not so great. The disease began to appear last September in two portions of the district where the sanitary conditions were wretchedly defective, open sewers and cess-pools in front of the houses, badly drained cellars. These defects were remedied and the disease was lulled for a time, with now and then an occasional outbreak among children of school age. The school building that these children attended was found to be in excellent sanitary condition, the main sewerage of the school and the whole district was without gross faults, so far as could be discovered. Contagion through milk or ice could not be traced. Only two known causes remained open for investigation, and these were contact at home or at school and unsanitary conditions about the dwelling.

Some of the dwellings were found in bad sanitary condition, but when taken altogether the gross defects in plumbing and drain-

age did not seem to furnish a sufficient cause for the spread of the disease. It was believed that some children had returned to school before complete recovery from diphtheria, and had thus served to communicate the disease to others. Inquiry developed the fact that a large number of children that became ill, belonged to one school. Across the hall from this room there is a faucet and several tin cups from which all the children drink. During a visit made to the school building, in company with Prof. Dodge, two of those cups were taken by him for bacteriological examination, and both cups were found to yield cultures of diphtheria bacilli from the foreign material about their rims. Here, then, we have proof of the possibility of propagating diphtheria by means of drinking cups, and, if this is so, why not other diseases as well? It is probable that children had entered school after apparent, but not real recovery from diphtheria, and, drinking from public cups, transmitted diphtheria germs to the cups from which they were deposited upon the lips of others who drank therefrom.

Another danger that menaces school children lies in the common practice of distributing lead pencils so that on one day a child gets one pencil, and on another day a pencil that may have been used by some child with a contagious disease.

Third, the relation of milk supply to diphtheria.

In 1878, W. H. Power, of London, to whom belongs the credit of first tracing the relation of milk supply to diphtheria, in a report submitted conclusive evidence that the milk supplied to certain families had been the means of spreading diphtheria among them. Several epidemics of diphtheria in different parts of England were by him traced to the milk supply, after every other source of contagion had been eliminated.

How was the contagion carried to the milk?

Was it introduced in the process of handling, or did it come from the cows?

Both of these questions may be answered in the affirmative. In the manure and filth near cow stables diphtheria and other pathogenic bacteria find necessary food, heat and moisture for their rapid multiplication. Milk also furnishes an excellent medium for bacterial growth, and from the reeking floors and adjoining dung heap to the bodies and udders of the cows and so into the milk pail, is a distance over which microörganisms may travel with facility. A visitor at certain cow stables could not fail to observe crusts of manure upon the bodies and udders of

many of the cows. If the milking process were watched, fine manure dust might be seen falling into the milk pails, carrying with it many bacteria more or less capable of doing harm. When milk is cooled in or near cow sheds, or other places where dust has more or less free access to it, numerous bacteria are carried into the milk and there await a proper temperature to multiply and a fertile soil in which to produce their characteristic diseases. If diphtheria occur in the milkman's family, diphtheria bacilli may find their way into the milk. In this city an investigation of the milk supplied to families in which diphtheria was reported, showed among other cases the following: One milkman having stables in an adjoining town, distributed milk to seven families in which one or more cases of diphtheria broke out. There were three deaths. This milkman had three cases of diphtheria in his own family, and, during the illness in his own family, milk from his stables was being sold in the city. Further inquiry showed that diphtheria did not appear in the families of his customers until after the disease had affected this milkman's family. Other cases might be cited in which there is good reason to believe that diphtheria has been carried in milk, but they lack the support of bacteriological proof.

Between diphtheria in man and diphtheria in cows an exact relation has been proven, both by observation and experiment. To a beginning in this work we are indebted to Powers. So early as 1878, while investigating an epidemic of diphtheria involving 573 households, he, by a process of exclusion, was led to believe that actual cow conditions had brought about the results observed. Upon the examination of the cows of two large dairies from which much milk was obtained in the infected district, Mr. Powers was able to find ulcerations upon the udders and teats of the cows, and also to find some of them in poor health. Satisfied that the source of the epidemic had been found, he embodied the results of his finding in a report to the government and also presented a paper to the London Pathological Society in 1879, in which he maintained that a similar relation existed between bovine diphtheria and human diphtheria as between tuberculosis and anthrax.

In several other epidemics in England, Powers was able to prove the existence of diphtheria in cattle by the strongest circumstantial evidence. Previous to 1883, and until 1889, the Klebs-Loeffler bacillus was not universally recognized as the cause of diphtheria. So that in Powers' earlier observations there was no known

way of demonstrating their truth or falsity. But in 1889, Klein in a paper submitted the results of his experiments upon milch cows, in which he showed by culture tests that true diphtheria may exist in these animals. Cats fed upon milk from inoculated cows showed all the symptoms of diphtheria, one animal dying of the disease. Thus, ten years after Powers' discovery, his observations were confirmed by experimental proof.

Diphtheria is not a widespread disease among cattle. Inquiry among local owners of milch cows leads to the belief that few cases of manifest disease of the milk apparatus are seen. It was found that most men had seen cows with severe disease of the teats, some of which were attended by sloughing and loss of the entire nipple. During the illness the cows always suffered in health.

It is only within the scope of this short paper to briefly point out remedies applicable under those conditions which have been shown to exist. These are :

(1) Repair defective plumbing and secure adequate drainage in every home where defects are found to exist.

(2) Guard all means of contact by sufficient and rigid quarantine, so that patients having had diphtheria shall be really well before they are allowed to mingle with others. Public drinking cups in schools and elsewhere to be abolished. A system of distributing lead pencils in public schools to be so arranged that each child shall have his own lead pencil.

(3) Laws governing the construction and maintenance of those stables from which our milk supply is drawn.

(4) The sterilization of all milk for children's use.

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## MARASMUS.

By HERMAN D. MARCUS, M. D., Philadelphia,
Late Resident Physician at the Philadelphia Hospital.

Marasmus, or simple atrophy, is essentially a disease of infancy, affecting children during their first years. The etiology of this disease is almost always due to injudicious feeding, or to a lack of cleanliness. In the group of injudicious feeding we may place both breast and bottle-fed children.

Breast-fed children may suffer from a lack of milk or from feeding on innutritious milk, while bottle-fed children almost always

suffer from this disease when brought up on a poor quality of milk, the quantity being nearly always in excess. Breast-fed children are exposed to the natural changes in the mother's milk due to emotional disturbances, again, although the breast milk may be perfectly normal, the digestive organs of the infant may be in such a state as to demand a different nutrition, owing to the richness of the mother's milk.

In this age, we may truly say that bottle-fed children are gradually increasing in number, and we will, therefore, find a greater number of children suffering from malnutrition than in former years when a mother's pride rejoiced in giving her milk to her babe.

The essentials to a proper feeding of bottle-fed children are: (1) clean vessels ; (2) proper food.

Only too often we may find children fed on the very best preparations suffering from diarrhea, vomiting, and the like, when close investigations will show carelessly cleansed vessels. Thus the bottle will be refilled or the rubber nipple used over and over again without properly washing either, and on inspection we may find both bottle and nipple encrusted with curd and smelling abominably. The newer nipples, consisting of a long rubber and glass tubing, are undoubtedly the most wretched inventions against cleanliness. The caliber of these tubes is so narrow and the whole affair so complicated as to defy thorough cleansing. The plain rubber nipple and a small bottle without any corners inside are the most appropriate and the easiest cleaned.

The baby's food should, until the first year, be exclusively milk. No bread, meat, vegetable, or like food should be permitted, and the plea, "to get them used to everything," is a very poor one.

The digestive organs of an infant are not sufficiently developed to absorb such food, and the result of such a practice may soon be observed by the alimentary disturbances following.

In the first place of artificial foods must be put cow's milk. Cow's milk, when properly prepared, will be found the very best substitute for mother's milk. As cow's milk contains more caseine and less sugar than mother's milk, this should be equalized thus for new-born babies—the milk should be diluted equally with water to which sugar should be added. But despite all precautions as to proper amount of food, proper sterilization and regulation of intervals in feeding we may still find the infant ill-nourished.

In cases of marasmus in breast-fed children the cause will most probably lie in the poor quality of the milk. We first notice a gradual emaciation. The face becomes pinched and anxious-looking, the lips anemic ; the child becomes fretful; during nursing the child grasps the nipple with fervor and will suck the milk ravenously. In such cases no special organic defects can be noticed.

Marasmus in bottle-fed children is accentuated by the rapid emaciation, the peculiar wasted face—appearing like that of an old person. The appetite is ravenous and cannot be satisfied. The extremities, in fact the whole body, emaciate rapidly until the child has the appearance of a skeleton.

Although constipation is most frequent, diarrhea accompanied by vomiting may set in. At times nervous symptoms may be observed, but this is rare, most infants lying as if in a stupor. The temperature is nearly always subnormal.

In the treatment of this affection the diet, of course, is the most important factor. In early cases regulation of the diet is all that is required ; more advanced cases may demand medicinal treatment. It is of the greatest importance to give in such cases easily assimilable and highly nutritious food. Probably the best of the so-called food preparations are Carnrick's lactopreparata and soluble food. The former closely resembles human milk and should be given to infants up to seven or eight months, while the latter consists of lactopreparata and dextrinated wheat, and should be given to older infants. These foods are highly nutritious, very easily digested and will be found of the greatest help in the treatment of marasmus.

Inunctions of oil and internally bicarbonate of soda and bismuth in such cases which are complicated by diarrhea and vomiting, or small doses of calomel, followed by castor oil or some aperient, if constipation is present, will be found of the greatest benefit. Cod liver oil, preferably the pure oil, may be given as soon as the stomach is able to retain it.

Fresh air and extreme cleanliness are hygienic precautions which all infants need, especially those afflicted with marasmus.

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In Toronto a health officer requested the dismissal from school of a child suffering with phthisis, and this exercise of authority precipitated a legal contest. The judge sustained the action of the official, claiming the disease to be contagious.—*Maryland Med. Journal.*

# PROVISION FOR EPILEPTICS.[1]

By WM. PRYOR LETCHWORTH, LL. D.,
Commissioner of the New York State Board of Charities.

Various theories as to the cause of epilepsy have been advanced by those who have studied the subject scientifically, but none of them have stood the test of general application; and at the present time the most learned in the study of the subject frankly admit that the nature of the disease is still a mystery. Dr. Ludwig Hirt, in his noted work on Diseases of the Nervous System, says: "The structure as well as the physiological functions of the human brain are, up to the present time, so little understood that we are far from having any sure basis upon which to lay the foundations of a cerebral pathology." He further says: "By epilepsy in the stricter sense of the term we designate a functional neurosis, the seat of which is still unknown."

Dr. Jules Christian, physician to the National Hospital at Charenton, France, says: "Nobody really doubts that epilepsy is a disease of the brain ; upon that all are agreed, but no one has been able to determine with any precision the part of the organ affected, nor the nature of the lesion which produces the disease. All the researches of pathological anatomy have hitherto been at variance." After discussing different theories on the subject, beginning with that of Dr. Marshall Hall, he says: "To anyone asking my opinion as to the approximate cause of epilepsy, I should simply reply, I do not know."

Though physicians differ as to the nature of epilepsy, and the wisest admit that they have not yet been able to fathom its mysteries, it is an established fact that certain medical and moral treatment will render less frequent the terrible manifestations of the disease, and in some instances prevent their recurrence. It is, therefore, of the greatest importance that such provision be made for this unfortunate class as seems best suited to their needs. The fact that epilepsy is not thoroughly understood, instead of discouraging research into its mysteries, argues strongly in favor of turning upon the subject the concentrated light of scientific investigation and study.

The epileptic is in one sense an outcast. In his own home his presence is distressful and disturbing ; the privileges of the church and of places of amusement are denied him ; it is difficult for him

1. Read before the National Conference of Charities and Correction, held at Nashville, Tenn., May 23-28, 1894.

to find employment; and eventually, the progress of his malady having been gradually accelerated by his unhappy environment, he finds his way into the almshouse or the insane asylum, neither of which is a suitable place for him. In the almshouse he cannot receive the care and treatment which his peculiar infirmity requires, and his presence in the insane asylum is often injurious to the insane, especially the convalescing; moreover, a sense of the injustice of enforced confinement and association with lunatics, precipitates a crisis in his own mental condition.

While it is generally admitted by those who have studied this disease with reference to the best interests of those afflicted by it and of society, that care and treatment different from that provided for any other class of dependents is necessary for them, it is, nevertheless, true that very limited special provision has been made for epileptics in comparison with their numbers. According to returns made to the New York State Board of Charities, there were 614 epileptics in the poorhouses and almshouses of the State of New York, September 30, 1893. It is estimated that there are 12,000 in the State, and 120,000 in the United States. These numbers are based on an estimate of about two to every one thousand of the population. In Germany the number is estimated to be at least one to every one thousand of the population. A recent census taken of epileptics in the canton of Arrau, Switzerland, made the ratio 2.42 to every one thousand of the population. These estimates include epilepsy of all types. It is thought that the ratio of this class in England is not less than it is in the German states.

The principal homes for epileptics are in Germany, and most of those established within recent years were founded upon the colony plan, which is now regarded as the most advanced system of care for this class that has yet been devised. In a late report of a special committee of the Charity Organization Society of London, which was appointed to make a scientific inquiry into the public and charitable provision for the care and training of epileptics and feeble-minded, deformed and crippled persons, we have some valuable suggestions respecting the proper provision for epileptics. The large number of eminent physicians and experienced charity workers engaged in this inquiry entitles the following conclusion reached by them to careful consideration:

For all alike, for the furtherance of self-control and for healthy enjoyment, a well-ordered home life is required. These things—school education, employment of the most suitable and varied kinds, and home-

life—the colony system provides. As house after house is built for the settlers, the classification becomes more and more complete for all purposes. Each house should be in its internal administration a separate unit, under the charge of a home superintendent or house father. There is thus always large scope for expansion according to actual demand. A large staff of nurses is necessary, and for these special provision must be made. Medically, if the serious nature of the disease be taken into account, the colony system, with careful medical treatment, produces the best results. For the worst cases, and to provide against the constant ailments of many of the colonists, hospital accommodation is necessary ; and, for the study of the disease, the fullest opportunity must be given to scientific research and treatment.

Dr. Peterson,[1] who, while First Assistant Physician at the Hudson River State Hospital, had a large number of epileptics under his charge, and who has studied their needs by personal observations at Bielefeld and elsewhere, thus remarks on the kind of care necessary for this class :

There is but one kind of institution which can meet the case of those who suffer from this disease. No asylum, no large hospital, no single vast building in a great city, is appropriate for the purpose. It must be an establishment combining many unusual features. It must have schools and teachers for the education of the young epileptics ; it must have offices, shops of all kinds, stores, dairy, farm, gardens, granaries, for as they grow up, these patients should acquire trades or professions ; it must have a group of small hospital and asylum buildings where such as are sick or mentally infirm may be cared for ; it must have skilled physicians ; it must have a church, a theatre, a gymnasium, and a bathing establishment ; it must have, finally, a pathological laboratory presided over by the keenest pathologist obtainable, so that in the course of time a cause and a cure may be discovered for this terrible disease. Such a place would not be a hospital in the ordinary sense of the term ; it would be a village in itself, a colony for epileptics.

It may be of interest to glance briefly at the origin of the colony system. In doing so we must turn our attention to Europe. Some time prior to 1848, John Bost, pastor of a Protestant church at La Force, near Bordeaux in France, out of his sympathy for friendless girls, set out to build a home for them adjoining his church. The members of his congregation, who were poor, aided him with the labor of their hands, and he begged means while preaching in France, England and Switzerland to secure his object.

1. Dr. Frederick Peterson, Attending Physician to the New York Hospital for Nervous Diseases ; Pathologist to the New York City Insane Asylums ; Chief-of-Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York.

He succeeded in opening his home in 1848. But other classes of the unfortunate likewise appealing to his sympathies, he soon built another house for young girls who were suffering from incurable diseases, or who were feeble-minded, or who were blind or becoming so. He next put up a house for epileptic girls, and, later, one for epileptic women, following with others for those who were dependent and afflicted with disease. His last house was built in 1881. The whole formed a group of families who lived as nearly as possible like families in ordinary homes. Pastor Bost believed in the efficacy of outdoor life in the country as well as medicine, in healing certain diseases, in the advantages of working in the fields and garden, of caring for animals, and in the contemplation of the works of Nature. From these homes for epileptics, which form a part of the mixed colony founded by John Bost, at La Force, came the first practical suggestion of colonizing epileptics and caring for them in family groups. The method thus originated formed the basis of a system which has been followed to a greater or less extent on the continent of Europe where provision has been made for this class.

The celebrated colony of Bielefeld, in Westphalia, was organized upwards of twenty-five years ago, through the humane efforts of Pastor von Bodelschwingh, a Lutheran clergyman, under the auspices of the Provincial Committee of the Inner Mission in Rhineland and Westphalia. It is a private charitable institution, largely supported by receipts from private patients and voluntary subscriptions, but partially by payments from public authorities. It has among its beneficiaries 1,100 epileptics, separately classified, who are under the gentle ministrations of the Westphalian Brotherhood and the Westphalian Deaconesses. This colony, with its plain, unpretentious buildings distributed over 1,350 acres of land, its church, school, gymnasium, places for entertainment, hospital, carpenter shop, blacksmith shop, shoe shop, saddlery, tailor shop, basket weaver's establishment, iron foundry, mill, seed assorting house, book bindery, printing establishment, bakery, brick kiln, farm buildings for the care of all kinds of stock, cultivated fields, meadows, orchards, gardens, groves, embellished grounds, trellised vines and attractive dwellings, has more the characteristics of home, family and natural life than any other existing institution for epileptics. It has been so well described by Dr. Peterson, who visited it in 1886 ; also in the report made upon it to the Charity Organization Society of London, by Miss E. Burdon Sanderson,

who visited it in 1892, and in a recently published work of Julie Sutter, entitled A Colony of Mercy, that further reference to it seems unnecessary.

There are but two or three homes for epileptics in England, and these are of quite recent origin. The Maghull Home was founded in 1889 mainly through the efforts of Dr. William Alexander and the benefactions of Mr. Cox, a wealthy resident of Liverpool. The principal building of the home is an old manor house, which is situated in the midst of neat lawns and gardens surrounded by shaded meadows, about seven miles from the city of Liverpool. The cases admitted are chiefly those in which there is a reasonable prospect of cure or amelioration. The system of treatment includes a well-ordered home-life, plain diet, careful supervision and employment. This small work, undertaken as an experiment, has been so successful that an attempt is being made to extend it on a larger scale in other parts of England.

At Godalming, in Surrey, the Countess of Meath has lately established a home for epileptic women and girls. It has a capacity for fifty patients. The work was inspired by a visit made by this estimable lady to Bielefeld, where she was deeply impressed with the wisdom and benevolence of the work conducted there by Pastor von Bodelschwingh.

There are two or three hospitals for the paralyzed and epileptic in London, but the largest and most important of these, the National Hospital, does not admit chronic cases, and the other two treat the ordinary epileptic only as an out-patient. The majority of the charitable institutions refuse admission to epileptics ; and all charitable workers, whether medical or lay, have found it next to impossible to obtain employment for those who suffer from fits, with the result that the workhouse, poor-law infirmaries and lunatic asylums become the only places where these unfortunate people can be received.

The National Society for the Employment of Epileptics is now making an energetic effort to benefit this large class of sufferers, by establishing homes where eight hundred or more sane epileptics may be provided with suitable employment under proper supervision. With this aim in view, the society has just purchased a farm in Buckinghamshire, near the Village of Chalfont, St. Peters, and commenced improvements upon it. The plan proposed is :

To provide a home for those necessitous epileptics who are able

and willing to work, but for whom their friends are unable to procure employment on account of the affliction which bars their admission into ordinary fields of industry. It is intended that the cottages shall be arranged for these, and shall each accommodate, according to their size, from ten to twenty epileptics. The sexes will be separated, as will also the children from the adults. Market gardening, spade and barrow labor, cow-keeping, dairy work and poultry farming will be the first industries ; then gardening and fruit culture, and later on will follow bootmaking, carpentering book-binding, printing and other industries ; and for the women, laundry work, sewing, cooking and various domestic services.

In this praiseworthy movement, from which much good is anticipated, some of the most prominent men and women in England are engaged.

To Ohio belongs the honor of being the first State in the Union to provide a State institution exclusively for epileptics. It was through the forcible presentation to the legislature, by the State Board of Charities, of the neglect, sufferings and needs of this peculiar class that the Governor of the State, in 1890, was authorized by the legislature to appoint a commission to select a site for an institution for their special care and medical treatment. This action, with subsequent legislation, resulted in the establishment of the Asylum for Epileptics and Epileptic Insane at Gallipolis, the corner-stone of which was laid November 12, 1891. For this new departure in our country, on behalf of a much neglected class, we are largely indebted to the persistent efforts of General R. Brinkerhoff, President of the Ohio State Board of Charities.

It unfortunately happened in this case, as it frequently does in founding State institutions, that a narrow policy stood in the way of a right beginning. In order to utilize a property already belonging to the State, and formerly used for another purpose, a site was selected having an insufficiency of land. Thus the planting of an institution on the colony or village plan became, to a large degree impracticable. The whole estate comprises only 105 acres. The buildings form a single group, and, like many other of our State institutions, are designed more to create an imposing effect than to attain the naturalness and diversity of home or family life. The buildings are on the pavilion or cottage plan, in the midst of which stands the administration building. Five cottages have been completed, with accommodation for 250 men ; and it is expected that four more will be ready this Summer, for the accommodation of 200 women. The plan embraces twelve

cottages for fifty patients each. Those erected are of gray sandstone, fire-proof, two stories high, and built at a cost of $15,000 each. In the further erection of cottages it has been decided to place them at a greater distance from the main group, in order to conform more nearly to the colony system. The aim is to secure the means of classification for those differently affected,—hospital treatment for those requiring it, and education and useful employment for those who may be benefited thereby.

In Massachusetts there was opened, in 1882, the Hospital Cottages for Children, at Baldwinvsille. The institution was first organized as a private charity, but is now governed by five trustees appointed by the Governor, and fourteen appointed by the corporation. It has been liberally aided by the State. Children under fourteen years of age are admitted who are suffering from epileptic or epileptiform seizures; children suffering from nervous disorders, not feeble-minded ; children with deformities, diseases of the joints and infantile paralysis ; also those needing surgical operations and fitting supports. On September 30, 1893, the hospital contained 103 children. The whole number treated during the fifteen previous months was 170, about two-thirds of whom were epileptics.

In 1892, the Governor of Massachusetts sent to the legislature a message respecting the making of State provision for epileptics, upon which he recommended early and favorable action. His message was accompanied by a report made to him by a committee of experts of the Massachusetts Medical Society, advocating the establishment of an institution in the form of cottage hospitals for epileptics. This report the Governor had previously submitted to the State Board of Lunacy and Charity, which had approved it. The legislature gave the subject some consideration, but referred it to the next General Court. No action was taken during the session of 1893. The Board of Lunacy and Charity, in alluding to this subject in their report dated January, 1894, use the following language :

> The matter is one that demands prompt attention. The number of these unfortunates is constantly increasing, and, while almost every other class of the sick, the poor and the afflicted are provided for, no special arrangement is made for adult epileptics, and their only refuge seems to be the insane hospital, in whose crowded wards they are wholly out of place, or the town almshouse, where their only prospect is increased suffering and gradual decay.

In Pennsylvania, at the Training School for Feeble-Minded, at Elwyn, two buildings, one for boys and the other for girls, are now set apart for epileptic children.

A hospital for the treatment of sane epileptics has just been organized, upon a limited scale, in Philadelphia, in connection with St. Clement Church parish. The building occupied was formerly used and known as St. Clement's Hospital.

The Lunacy Committee of the Board of Public Charities of Pennsylvania, in their report for 1893, state that 575 epileptics are detained under the lunacy law in the various institutions for the insane in that State. The committee make a strong plea for a State institution for the exclusive accommodation, care and treatment, upon an industrial basis, for this class, the wretched condition of the majority of which, it is asserted, demands relief from the legislature.

Through the instrumentality of Dr. A. E. Osborne, Superintendent of the California Home for the Care and Training of Feeble-Minded Children, at Santa Clara, this institution secured legislation, in 1887, permitting it to establish a department for epileptics, which it subsequently did by erecting a separate cottage building, capable of accommodating seventy-five children; but this is taxed beyond its capacity, there being 100 of this class now in the institution.

Admissions are restricted to those showing marked mental enfeeblement. Dr. Osborne writes, under date of May 9, 1894: "It is our intention, after the completion of our main building, to add other small buildings or cottages to our epileptic department, that we may extend the benefits of the institution to the more curable and hopeful class of epileptics."

A law was recently passed by the Michigan legislature providing for the care and treatment of epileptics and the feeble-minded in separate buildings on the cottage plan. A farm has been purchased to carry out this project and a contract made for putting up buildings.

A new custodial building for women and girls has just been opened at the School for the Feeble-Minded at Faribault, in Minnesota, and a department for epileptics, with special supervisory care, has been established. Mr. Hart, Secretary of the Board of Corrections and Charities of that State, says: "We have already, I think, under public care about 120 epileptics. There is some sentiment in the State in favor of a separate institution for epilep-

tics, and I think it possible that our Board may recommend to the next legislature the creation of such an institution."

In Maryland the plan of buying a small country place and beginning an epileptic colony is being carried out by the King's Daughters of Baltimore.

In some other states, state boards of charities and charity organization societies have long been, and are still, endeavoring to secure more humane and intelligent care for epileptics. In New York State the attention of the legislature was directed to the necessity for some special provision for this class by the State Commissioner in Lunacy in his first report, as far back as 1873 ; and in his subsequent reports Dr. Ordronaux repeatedly emphasized the importance of the subject.

The State Board of Charities, in its report for the year 1878, directed the attention of the legislature to the lack of proper provision for this class and appealed for State intervention in their behalf.

The present State Lunacy Commission, in its report for 1891, strongly advocated the establishment of a State hospital for the special care and treatment of sane epileptics.

No person in the State of New York, nor in this country, has done more to enlighten the public and influence legislation on this important question than Dr. Peterson. This he has done through addresses before medical and other societies, State conventions of superintendents of the poor, and able contributions to the public press.

Under the auspices of the State Charities Aid Association, a bill was introduced in the New York legislature in 1892, and passed the same year, directing the State Board of Charities to select a suitable site on which to establish an institution on the colony plan for the medical treatment, care, education and employment of epileptics, and to prepare plans and estimates of cost of buildings, and submit the same to the next legislature. A committee of the board, composed of its president and two commissioners, spent a considerable part of the following Summer in looking up a site, and finally recommended the purchase of a tract of land situated in the famous Genesee Valley, the garden of the State. The site was, in aboriginal days, an Indian village, and bore the Indian name of Sonyea, with the poetical signification of sunshine. The tract contains 1,872 acres of highly productive land. It was owned by the United Society of Christian Believers, commonly designated

Shakers, who, in consequence of a reduction in their numbers, desired to sell their estate and consolidate the settlement with another branch of their society. Over the property was distributed a large number of buildings, including comfortable dwellings, capacious barns, stables, workshops, and a mill having a good water-power supplied by an unfailing, quick-flowing stream, which centrally traverses and drains the whole property. Here are extensive orchards of apple, pear, peach, plum and apricot trees, with large berry and vegetable gardens, producing every variety of garden products. The place is easily accessible. A north and south railway, with a station upon the property, intersects all the east and west trunk lines of railway that pass through the State. The property is in every way admirably adapted for the purpose of an epileptic colony, it having been used and developed by the Shakers as a colony.

Based upon the report of the State Board of Charities, a bill was introduced in the legislature in 1893, by the request of the State Charities Aid Association, to purchase the Shaker property, and to establish thereon a colony for epileptics to be known as the Sonyea Colony. The bill was almost unanimously endorsed by the legislature and by the public press, but for economic reasons was not approved by the Governor. Thus, after much labor and sacrifice of time, those interested in charity work, especially in the epileptic class, were sadly disappointed.

The same bill, however, with slight modifications, was introduced under the same auspices in the legislature of 1894 by Hon. Hamilton Fish, and has become a law of the State, this act, memorable in the history of New York State charities, was approved by Governor Flower, April 26, 1894, having passed the assembly by a vote of ninety-six to four and the senate by an unanimous vote. It is designated An Act to establish an Epileptic Colony and making an appropriation therefor. For the purpose of doing away with the suggestion of an institution for a diseased class, the word epileptic was omitted from the legal name of the corporation. With a view to memorialize fittingly the distinguished public services of Hon. Oscar Craig, late President of the State Board of Charities, whose death occurred January 2, 1894, the following declaration was made in the first section of the act :

There shall be established in Livingston County, in this State, a colony for epileptics, to be known as the Craig Colony ; thus named in honor of the late Oscar Craig, of Rochester, N. Y., whose efficient and

gratuitous public services in behalf of epileptics and other dependent unfortunates the State desires to commemorate.

The objects of the colony are stated to be "to secure the humane, curative, scientific and economical treatment and care of epileptics, exclusive of insane epileptics."

The act requires that the buildings and improvements upon the property shall be utilized, and that a general plan shall be adopted in accord with the recommendations in the report of the State Board of Charities to the legislature in 1893, and that subsequently all building shall be made to subserve such design and recommendations and true economy.

The colony is subject to the supervision of the State Board of Charities, and the board is required to report annually what appropriations are necessary for it. The board of managers consists of five persons appointed by the Governor, by and with the advice and consent of the senate, for terms of five years, their terms so arranged that one member retires annually. They receive no compensation for their services, but are allowed their reasonable traveling and official expenses. The board of managers appoints the superintendent and treasurer, and is charged with the entire government, discipline, management and business of the colony. The superintendent is the chief executive officer, subject to the supervision and control of the board of managers, and it is required that he must be a well-educated physician, a graduate of a legally chartered medical college, with an experience of at least five years in actual practice in his profession, including one year's actual experience in a general hospital, and that he shall be certified as qualified by the civil service commission, after a competitive examination. The superintendent appoints the steward, matron and subordinate officers and teachers, and determines their salaries, subject to the approval of the State comptroller. He may, in his discretion, suspend or discharge any of his subordinates.

Epileptics of all ages residing in the State, who are dependent, are received and gratuitously supported. They are designated as State patients. Such other epileptics as can be conveniently accommodated are admitted by special agreement upon such terms as are deemed just by the superintendent, and are designated as private patients. In the reception of patients, preference is given to poor or indigent epileptics or the children of poor or indigent persons. Preference is also given to those who are partially indigent over those who are able to furnish support. For State

patients there must be paid annually by the authorities sending them the sum of $30 each for clothing. Should an epileptic State patient become insane, he is transferred to the State hospital of the district, or institution for the insane in the district, of which he was a resident prior to his admission.

Before deciding upon the selection of the Sonyea site, every possible precaution was taken by the committee of the State Board of Charities to guard against mistakes. Statistics were gathered showing the healthfulness of the locality ; a chemical analysis was made of the water, to determine its purity and suitableness for family use; a civil engineer was engaged to examine and report on the sufficiency of the water supply and the facilities for disposing of sewage ; a survey was made of the land, to determine its boundaries and acreage ; and the numerous buildings upon the property were examined by the architect,[1] and their capacity and adaptability to colony purposes considered.

The plans submitted to the legislature were based upon principles previously enunciated by Dr. Peterson, who is considered the highest authority in our land upon this subject. It is gratifying to state that the Governor has appointed him a member of the managing board and that he has since been elected its president.

It would seem, with this magnificent estate for a foundation, and the favorable auspices under which it begins its existence, that we may reasonably expect in the Craig Colony the attainment of an ideal institution.

The colony system for the care of epileptics, which has proved so beneficent on the continent of Europe, was developed there under the auspices of private and unofficial charity. Whether we shall attain as satisfactory results under a State and official system as under one directed by a spirit of pure benevolence is a question, However this may be, to organize the work in the State of New York on a large scale on the basis of private charity has been found impracticable. We may indulge the hope that the work, as undertaken by the State, will be more comprehensive than it would have been otherwise, and that the aggregate of good, if measured by the number benefited, will be greater.

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Salines operate in three or four hours. Croton oil in one or two hours. Jalap, gamboge and senna, in three or four hours. Rhubarb and castor oil in from four to six hours. Aloes and mandrake in from ten to fourteen hours.—*Louisville Medical Monthly.*

1. George J. Metzger, of Buffalo.

## PHILADELPHIA NOTES.

From Our Special Correspondent.

How grateful must Buffalonians be for their pure Lake Erie water. The often spoken of supply of the City of Brotherly Love is and has been all Summer in such a condition that the local papers advise the citizens to have patience with the street sprinkler, because sprinkling is useless and he is obliged to spread the water with a shovel, it is so thick with Schuylkill mud.

Among the college circulars sent out about this time the Fourth Annual Announcement of the Philadelphia Post-Graduate School of Homeopathics deserves special mention. This is its fourth year. It has a teaching staff of *twelve*, but only *eleven* alumni, the result of three years' work, and out of these eleven, *six*, *i. e.*, every one who resides in Philadelphia and Camden, has received an appointment on the faculty as professors and instructors. The organon of Samuel Hahneman, edition of 1833, furnishes the sole groundwork of the principles taught. Just imagine teaching medicine in 1894 from a text-book sixty years old!

The Medico-Chirurgical College building, of Philadelphia, has had a narrow escape from destruction. The common and select councils had passed an ordinance providing for a boulevard from the city hall to the park, about a mile long and 100 feet wide, passing diagonally across blocks of buildings and public squares at a cost estimated variously from $6,000,000 to $15,000,000. This boulevard would have passed through the college grounds and hospital. Fortunately the mayor at the last hour vetoed the bill because all Philadelphia seemed to be up in arms against it, crying for better water supply and more school houses, which the councils, council-like, had ignored in their desire to beautify the city and make it "attractive to strangers." The mayor's action leaves the college buildings in the same old place, at least, for the present.

Dr. Geo. M. Gould has been very ill in London since July 1st with a severe attack of influenza and inflammation of the middle ear. He received the best of care at the house of Mr. Ernest Hart, editor of the *British Medical Journal*, and is now on the road toward recovery, hoping to be well enough to attend the meeting of the International Ophthalmologic Congress, at Edinburgh, on August 8th.

# Society Proceedings.

## MEDICAL SOCIETY OF THE COUNTY OF CHAUTAUQUA.

Reported by C. A. ELLIS, M. D., Secretary.

The Medical Society of the County of Chautauqua, at its annual meeting, held July 10, 1894, elected the following officers: President, Dr. Nelson G. Richmond, Fredonia; vice-president, Dr. Morris N. Bemus, Jamestown; secretary and treasurer, Dr. C. A. Ellis, Sherman.

The scientific part of the program was held at the Hotel Atheneum, Chautauqua, and consisted of an afternoon and evening session.

The guests of the society were Drs. Roswell Park and Lucien Howe, of Buffalo.

The following program was carried out: Topic for discussion, Diphtheria: (1) Its Prevalence, Mortality and Importance of Investigation, Dr. Morris N. Bemus, Jamestown; (2) Observation in Diagnosis, and Some Sanitary Aspects, Dr. J. C. Lewis, Panama; (3) Pathology, Paralysis Following, Dr. O. C. Shaw, Kennedy; (4) Croup and Diphtheria, Unity or Duality, Dr. J. Murphy, Sherman; (5) Intubation—Tracheotomy—Which, When, How Strongly Shall we Urge? Dr. Roswell Park, Buffalo. The referee, who was to read a paper on Treatment, failing to be present, Dr. Park also discussed this part of the subject. (6) Treatment of Purulent Conjunctivitis, Dr. Lucien Howe, Buffalo.

There was a large number in attendance, and a general and free discussion, and great interest manifested in the reading of the papers, which were unusually interesting and instructive.

The society saw fit to postpone indefinitely the consideration of the amendments to the constitution, by-laws, fee bill and code of ethics. These amendments were proposed simply to correct the anomaly which now exists and to harmonize the code and constitution with those of the Medical Society of the State of New York, with which the county society is now in complete affiliation.

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The best, safest and cheapest sponges are made from absorbent cotton and butter cloth. A bunch of cotton, larger or smaller, as desired, is put on a square of butter cloth, cut the size of a ladies' handkerchief. The four corners are tied over the cotton, and the "sponge" is complete.—*Ex.*

# Selection.

## THE DANGERS OF THE LONG RECTAL TUBE.

The use of the long rectal tube in cases of obstruction, or supposed obstruction of the bowel, has never been looked upon with favor by good anatomists. The finding of the traditional needle in the haystack is but little more difficult than the successful maneuvering of the rectal tube through the twists and turns of the sigmoid flexure. The question of the value and safety of this tube having been asked of the *British Medical Journal*, the matter was referred to Mr. Harrison Cripps, who replied as follows to that journal:

Traditions die hard, and notwithstanding the condemnation of the long rectal tube by Brodie, Treves and many other eminent authorities, I still find that in most cases of obstruction or supposed obstruction the tube has been introduced. Fortunately, these tubes are fairly soft, so that in a capacious rectum, when they impinge and are arrested about opposite the promontory of the sacrum, they simply coil up and do no harm. If stiffer ones are used, the patient's life is placed in imminent risk. A patient at St. Bartholomew's Hospital was to be operated on for ruptured perineum. In order to increase the supposed efficacy of the injection, a quart of soap and water, with some ounces of oil, were injected by means of a long tube. The injection never returned. A few hours afterwards, owing to the acute symptoms of the patient, I assisted one of my colleagues in opening the abdomen. The soap and water and oil we found in the abdominal cavity, and a hole below a reduplicated fold in the upper part of the rectum. The patient died. The idea that these tubes can be generally passed into and beyond the sigmoid flexure is a pure delusion, save in the rarest circumstances. As a means of diagnosis, or of treating stricture beyond the reach of the finger, tubes of any kind are absolutely useless. If a stricture is actually present, it would be 100 to 1 against the long tube or bougie entering it, for it would almost certainly catch in the cul-de-sac, generally caused by the invagination of the stricture. If a stricture be not present, the arrest of the bougie by the sacral promontory leads to delusive diagnosis. Brodie, in his lectures, alludes to a case in which a worthy practitioner had spent over 150 hours in dilating a supposed stricture situated high up. The treatment had extended over a period of a year. Brodie, who was present at the post-mortem examination, found there was no sign of a stricture, the bougie becoming arrested by a curve of the sacrum.—*Columbus Medical Journal.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. AUGUST, 1894. No. 1.

## STATE LICENSURE FOR THE PRACTICE OF MEDICINE.

THE completion of another academic year of state licensure for the practice of medicine in New York, affords a fitting opportunity for offering remarks relating to the year's work, as well as observations on the principle involved and the relationship it bears to other states.

Though the present medical practice act has been on the statute books for three years, it was, as is well known, rendered practically nugatory for the first two years of its existence by reason of the passage of exemption laws, that covered the major portion of the graduates who would otherwise have come up for state examination. For the first year these exemptions were practically the whole number of students, nine hundred and thirteen having filed exemption papers. Less than one hundred applied for state license, and most of these were graduates of medical colleges in other states or foreign countries. The second year made a better showing, as exemptions were fewer. During this period the state examining and licensing board, representing the Medical Society of the State of New York, passed two hundred and forty-four candidates and rejected twenty.

We now come to the consideration of the operations of the law during the third year of its life, and here we shall observe that exemptions have nearly ceased. This is, however, not absolutely the case, for, strange to say, all sorts of flimsy reasons are trumped up to avoid the state examination, and this in spite of the fact that the state license is a far more valuable instrument than the diploma of any medical school, and is worth all the effort that it costs in time and money. It enables a man to practise anywhere in the United States, and even foreign countries are beginning to

accord it recognition. It bears the stamp of the great Empire State, and is a commission that ought to beget pride in any man who holds it. It should be remarked, however, in all fairness, that some men, recognizing the value of the state license, have taken the examination and obtained it, when, under a strict construction of the law, they could not be compelled to do so. All honor to these men, say we! They stand out in bold relief against that class of men who have stretched a point to obtain exemption.

In this third academic year, the examinations by the state board have reached nearly four hundred in number, but the percentage of rejections has been considerably less. The answer papers have shown much more careful training on the part of the schools. There is still, however, great room for literary improvement, and the colleges will find it important to scrutinize carefully students' preliminary training at the entrance examination. Very often a candidate shows excellent medical proficiency and a knowledge of his subject, but makes a bad-looking paper by reason of deficient preliminary education. How grotesque it would appear to one of our English medical friends if he should walk into the office of one of the licensees of the State of New York only to find him speaking poor English and writing it worse. Yet this thing is very likely to happen unless the medical examining and licensing board guards the portals to state licensure with a jealous care in this respect.

The preliminary requirements are yet inadequate or are enforced with too great laxity to prevent incongruities like that above cited, hence the necessity of all the greater care on the part of the examiners.

At the last meeting of the Association of American Medical Colleges it was resolved to require four years of college teaching, each to be of six months' duration, as a requirement for graduation. Under the medical practice act of New York, the college courses were raised to three years as a minimum, and if no other reform had been inaugurated by the law, this alone would have been worth all the time and labor and patience expended in obtaining its enactment. Some of the colleges were very much disturbed at this proposed increase of the time for college teaching, and ostensibly based their opposition to the law on that ground. But the adoption of a four years' requirement by the American Association of Medical Colleges will necessitate the amendment of the

New York law to meet this increase. The people are becoming aroused on the subject of higher medical education, and will be intolerant of medical schools whose "learned professors" stand in the path of this ever-moving procession.

Canada has increased the terms of her college courses to five years, and we have no doubt that the time will soon come when this will be required in the United States. We have noticed that already one Western college, the St. Louis College of Physicians and Surgeons, has announced its intention to earnestly advocate this increase.

It is to be regretted that the great State of Ohio failed to enact the law before its last legislature, providing for separate state examinations and license. Kansas, too, is in close sympathy with Ohio in the failure to establish such a law. Another year, however, will probably place both of these great commonwealths in the line of improved medical education with better practice acts than they would have had, had they succeeded at first.

The New York law needs two amendments to bring it abreast of the spirit of the age. One of these should provide for a higher standard of preliminary education and more rigid entrance examinations, and the other should demand a four years' course and make it obligatory for the colleges to require this, and for these amendments we shall ever work and pray.

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## TOPICS OF THE MONTH.

The Buffalo Fresh Air Mission Hospital is a charity that should appeal to the kindest sentiments of the human heart. It is open for the reception of young children suffering from acute diseases of the intestinal tract, and contains thirty beds. It is located at Athol Springs, half an hour's ride from Buffalo by either the Lake Shore or the Western New York & Pennsylvania railways.

It would appear to the ordinary observer that the accommodations are inadequate to meet the demands of a great city like Buffalo, and we trust that philanthropic citizens will contribute generously to the enlargement of the hospital as necessity arises.

Dr. Irving M. Snow and Dr. Dewitt H. Sherman, of Buffalo, are the attending physicians. A house physician is on duty at the hospital and trained nurses attend upon the little patients. All such cases should be sent at once to the country where the advan-

tages of fresh air as well as methodical treatment can be invoked to save life.

There is no charge for the care of the infant or its mother. As it is especially desired that the little patients shall be sent at once into the country, with no delay or vexatious formality for physician or parents or friends, any one wishing to send a patient to the Fresh Air Mission Hospital should go or telephone to the Fitch Institute, or to the residence of Dr. Snow or Dr. Sherman; or the sick child may be brought to the University Dispensary, 24 High street, between 4 and 5 P. M., or to the Fitch Dispensary, corner Swan and Michigan streets, between 10 and 11 A. M. Information and tickets will be furnished at these places.

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THE board of managers of the State Industrial School at Rochester has transmitted its forty-fifth annual report to the legislature, which covers the workings of the school for the year 1893. We are indebted to Dr. B. L. Hovey, one of the board of managers, for a copy of this interesting brochure.

This institution was formerly known as the Western House of Refuge, and for a number of years was conducted largely on the prison plan. Under the present system, however, it has become an educational institution of great import, including literary and manual training. The contract system has been abolished, trade schools established, and the introduction of military training has added an important part to the machinery of the school. The experts who passed judgment upon the work of this institution at the Chicago exposition last year, framed their award as follows: "For excellence of system, thorough teaching of the trades, careful and judicious management of pupils. The aim of the institution is to reform rather than to punish."

This report is handsomely printed on heavy book paper and is copiously illustrated with interior and exterior views of the institution and its inmates. The composition, press-work and binding of the report are the work of the boys employed in the printing office attached to the school.

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THERE has always been an impression among a certain portion of the newspaper fraternity that physicians must advertise. The *National Advertiser* has lately taken occasion to say that the predominating feature of the worn and antiquate code of ethics of the American Medical Association is that physicians under all circum-

stances must obtain all the free advertising possible, and in no case pay for an advertisement under the penalty of being cast aside as a quack. After evolving this brilliant idea, this erudite editor proceeds to ask with all the wisdom of a sophomore : "How long does the press of the country intend to allow itself to be used as a tool by the followers of this ancient code?" The *Kansas Medical Journal* answers this question in a most satisfactory manner. The editor proceeds to remark that there are some points in the code that he thinks should be expunged, but the section relative to advertising is not one of them. He very truthfully asserts that a physician has nothing to advertise, and after discussing the matter at some length he answers those newspapers that have more or less fondness for raising questions similar to that quoted from the *Advertiser*, as follows :

A newspaper which advertises a quack nostrum guaranteed to cure all the ills that man is heir to, destroys confidence in its legitimate advertisements and lowers its value as an advertising medium.

As long as the columns of all the daily and religious newspapers are filled with advertisements of quack nostrums, cure-alls, and medicines to prevent conception and produce abortion, physicians can hardly feel that these are legitimate mediums for reputable advertising.

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The assassination of M. Carnot, the able and patriotic president of the republic of France, at Lyon, June 24, 1894, startled the world and produced a profound sensation among its governments. The death wound was one of rare occurrence, caused by a stab in the liver, while President Carnot was receiving the plaudits of his countrymen on his way to the theatre in performance of his function relating to the exposition. He almost immediately sank in collapse and died in a few hours. It was found at the autopsy that the wound was seated in the right side, three centimeters below the xyphoid cartilage. It measured from twenty to twenty-five millimeters, and the blade had completely divided the corresponding costal cartilage. The blade of the knife penetrated the left lobe of the liver, perforating the organ about the suspensory ligaments from left to right and from above downward, in its passage wounding the vena porta, which was opened in two places. The length of the wound in the interior of the liver was eleven to twelve centimeters, and a fatal intraperitoneal hemorrhage was the result of this double perforation. Abdominal section was useless in such a condition, as the fatal nature of the wound was

evident from the outset. The only consolation from such a foul thrust is that the agony was soon ended. The judgment of the assassin should be swift and terrible.

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The great railroad strike that began at Chicago in the last days of June and spread rapidly throughout the West, finally reaching the Golden Gate, has at last subsided, and business traffic is resuming its normal status.

As medical journalists we have no occasion to discuss the causes that led to this unfortunate and extensive disruption of the relations of labor to capital, but the results thereof afford a legitimate field for comment. The loss of human life resultant therefrom is something terrible to contemplate; while the maimed, whose numbers will probably never be absolutely known, deserve that sympathy that belongs to unfortunate though ignorant and misguided people.

In view of all this suffering, it is a pleasant reflection to know that the medical profession, always humane and charitable, performed its whole duty towards alleviating the sufferings of the poor victims of the folly of Debs and his associates, but it is a pity that the general fund of the American Railway Union cannot be made to open its coffers and pay every dollar of damage, including adequate compensation to the surgeons who ministered to the wounded and dying.

The military under command of Major-General Nelson A. Miles, U. S. A., who, by the way, will soon be commander-in-chief of the army, performed its delicate duty in a masterful manner. The propriety was demonstrated in this strike of establishing government control through the aid of the army with the utmost promptness, and we hope hereafter in all similar outbreaks the precedent established by the government in the Chicago strike will be followed. This is demanded equally on grounds of humanity and economics.

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We publish on another page in this issue of the Journal an interesting article from the pen of William Pryor Letchworth, Esq., commissioner and formerly president of the New York State Board of Charities, entitled, Provision for Epileptics.

Mr. Letchworth is a well-known writer on charity economics, and his present paper will command attention everywhere by reason of the importance of the subject and the interesting manner in which he deals with it.

The interest in epileptics is everywhere increasing, and it will not be long before all the states will be compelled by public opinion to follow the example of Ohio and New York in establishing colonies for their care. We commend Mr. Letchworth's article to the careful perusal of every intelligent physician.

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The old-fashioned county medical fee-bill is becoming obsolete. It is a question whether it does any good or not, with the probabilities strongly in the direction that it is not in any way beneficial to the profession. A physician is quite apt to demand and obtain from his patients the value that he himself places on his services, and this whether his county medical society has a standard fee-bill or not.

It used to be thought that a fee-bill prevented the acceptance of remuneration that was on all hands regarded as dishonorably low, but experience has proven that this is not the case.

Again, the legality of the fee-bill is questionable. In Kansas a physician began suit for his fee, and in support thereof a fee-bill was introduced in evidence to show that his charge was not exorbitant, but he lost his case.

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## Personal.

Dr. S. S. Thorn, of Toledo, was elected president of the National Association of Railway Surgeons at its recent meeting in Galveston, Texas. Dr. Thorn was one of the founders of the association, is a surgeon of skill and judgment and is justly entitled to this honor so tardily bestowed.

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Dr. Horace Clark, of Buffalo, has resumed the special practice of laryngology at 21 North street. Hours, 9 to 1.

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Dr. V. P. Gibney has been appointed professor of clinical surgery in the College of Physicians and Surgeons, New York.

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Dr. G. Frank Lydston, of Chicago, has been appointed medical director and surgeon in charge of the new Masonic Hospital that has been established on State street, in that city. Dr. Lydston is well known as a clever surgeon and a frequent contributor of valued articles to medical literature, and this appointment is well bestowed.

Dr. C. J. Reynolds, of Buffalo, has removed from 893 East Genesee street to the corner of Fox and High streets.

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Dr. John B. Roberts has been elected president of the Pennsylvania State Medical Society. No better selection could have been made.

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Dr. M. D. Mann, of Buffalo, was elected president of the American Gynecological Society at its late meeting in Washington. This is the first time this office has been given outside of the inner circle of the first generation of gynecologists.

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Dr. and Mrs. A. A. Hubbell and daughter, of Buffalo, sailed for Europe, on the steamer Lucania, on Saturday, July 28, 1894. Dr. Hubbell will attend the International Ophthalmological Congress in Edinburgh in August, and, with Mrs. Hubbell and daughter, will spend altogether about six weeks abroad for much needed rest and recreation.

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Dr. Jane W. Carroll, of Buffalo, has removed her office from Cherry street to 489 East Genesee street. Dr. Carroll's daughter, Dr. Evangeline Carroll, has returned from Detroit, where she was resident physician at the Woman's Hospital, and has established her office also at 489 East Genesee street.

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Dr. John Williams, of 63 Brook street, London, who attended the Duchess of York during her recent confinement, has been made a baronet by the Queen. Sir John Williams is an honorary fellow of the American Association of Obstetricians and Gynecologists.

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Dr. J. B. S. Holmes, formerly of Rome, Ga., has removed to Atlanta, where he is building a private hospital for women that will be ready for patients on September 1, 1894. Dr. Holmes has also been appointed professor of obstetrics and gynecology in the Southern Medical College.

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Dr. I. S. Stone, of Washington, D. C., publishes in the *Virginia Medical Monthly*, May, 1894, a series of abdominal sections—the second series of twenty-five in his second hundred sections. But one

death occurred in the present series, in which case a long history of severe suppurative disease presented. Pus was found in the pelvis of one kidney at the autopsy. Not an ounce of urine was secreted during the twenty-four hours the patient lived after the operation. Dr. Stone's work is highly creditable to himself and to his profession.

## Obituary.

Dr. William Thompson Briggs died at his home in Nashville, June 13, 1894. Dr. Briggs was born at Bowling Green, Ky., December 4, 1828, and received his medical degree from Transylvania University in 1848. He was appointed demonstrator of anatomy in the medical department of the University of Nashville in 1851. In 1865, he was made professor of surgical anatomy and physiology; in 1866, professor of obstetrics and diseases of women and children, and in 1868, he was appointed professor of surgery, which latter chair he occupied until his death. He was one of the most distinguished surgeons of the South, and his judgment was appealed to far and wide as a consulting and operating surgeon. He was married in 1850 and his wife preceded him to the grave but a few weeks. He was a member of the American Surgical Association, of the Southern Surgical and Gynecological Association and was elected president of the American Medical Association at the Nashville meeting in 1890, presiding at the Washington meeting in 1891. His son, Dr. Charles S. Briggs, editor of the *Nashville Journal of Medicine and Surgery*, has been elected to the chair of surgery, for so many years occupied and but just vacated by his distinguished father.

## Society Meetings.

The American Association of Obstetricians and Gynecologists will hold its seventh annual meeting at Toronto, Ont., Wednesday, Thursday and Friday, September 19, 20 and 21, 1894, to which the medical profession is cordially invited.

The following is the preliminary program, subject to amendment until September 1st, namely: (1) President's address, George H. Rohé, Catonsville, Md.; (2) Personal Experience with Pus Tubes: When to Operate, How to Operate, and the Results of Operation, Jas. F. W. Ross, Toronto, Ont.; (3) Relation of Hysteria to Structural

Changes in the Uterus and Adnexa, A. P. Clarke, Cambridge, Mass.; (4) Demonstration of a Mechanism of Intussusception (rabbits), Robert T. Morris, New York ; (5) Nephrectomy, L. H. Dunning, Indianapolis ; (6) Treatment of Distension of the Fallopian Tubes Without Laparatomy and Removal, Frank A. Glasgow, St. Louis ; (7) Hysteria in Pregnancy, W. P. Manton, Detroit ; (8) Relations of Renal Insufficiency to Operations, Carlton C. Frederick, Buffalo ; (9) *a*, Importance of Recognizing Septic Puerperal Endometritis Early, and Its Treatment ; *b*, Demonstration of a Portable Operating Table for Gynecological and Abdominal (Trendelenberg) Work, Edward J. Ill, Newark, N. J.; (10) Suspension of Retroflexed Uterus by the Utero-ovarian Ligaments, with Report of Cases, Reuben Peterson, Grand Rapids, Mich.; (11) The Element of Habit in Gynecic Disease, Geo. F. Hulbert, St. Louis ; (12) Some Results of Ether Anesthesia in Abdominal Operations, I. S. Stone, Washington, D. C.; (13) Report in Abdominal Surgery, Presenting Cases, A. Vander Veer, Albany; (14) Supplementary Paper on Abdominal Section in Intrapelvic Hemorrhage, M. Rosenwasser, Cleveland; (15) Conservative Midwifery, J. M. Duff, Pittsburg; (16) The Cause of the Thirst Following Abdominal Section, Eugene Boise, Grand Rapids, Mich.; (17) The Care of Pregnant Women, W. B. Dewees, Salina, Kan.; (18) Subject to be announced, L. S. McMurtry, Louisville, Ky.; (19) *Discussion*—Inflammatory Disease of the Uterus and Appendages and of the Pelvic Peritoneum. (*a*) Introductory Remarks, William Warren Potter, Buffalo ; (*b*) Historical Sketch, Edward J. Ill, Newark, N. J.; (*c*) Clinical History, Charles A. L. Reed, Cincinnati, O.; (*d*) Causation and Pathology, Lewis S. McMurtry, Louisville, Ky.; (*e*) Diagnosis and Prognosis, James F. W. Ross, Toronto, Can.; (*f*) Treatment, M. Rosenwasser, Cleveland, O.; A. Vander Veer, Albany, N. Y.; J. H. Carstens, Detroit, Mich.; A. H. Cordier, Kansas City, Mo.; (*g*) Results—(*a*) When Untreated ; (*b*) Under Various Methods of Treatment, Joseph Price, Philadelphia, Pa.; (20) Intercurrent Typhoid Fever in Pregnancy, Thomas E. McArdle, Washington, D. C.; (21) Notes on a Case of Cholelithiasis, Frederick Blume, Allegheny, Pa.; (22) Perineal Operations, Joseph Price, Philadelphia ; (23) Remarks Bearing on the Surgical Treatment of Intussusception in Infants, Based on Two Successful Cases, Henry Howitt, Guelph, Ont.; (24) The Limitations of Surgery in the Treatment of the Uterus and its Appendages, William H. Myers, Fort Wayne, Ind.; (25) The Incision in Abdominal Sur-

gery—Methods and Results, J. H. Carstens, Detroit, Mich.; (26) Abdominal Section in Ectopic Gestation, where the Fetus is Living and Viable, X. O. Werder, Pittsburg, Pa.; (27) Subject to be announced, William E. B. Davis, Birmingham, Ala.; (28) Hysterectomy for Cancer of the Uterus, E. W. Cushing, Boston, Mass.

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The American Publishers' Association, in consequence of the closing of the hotel at White Sulphur Springs, Va., has changed its meeting place to Hot Springs, Va., where it will convene on Monday and Tuesday, August 13 and 14, 1894, under the presidency of Dr. Landon B. Edwards, of Richmond, Va. All medical publishers are cordially invited to attend. All who contemplate attending, are requested to advise the secretary, Charles Wood Fassett, Esq., St. Joseph, Mo., in order that provision may be made for their accommodation.

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The American Electro-Therapeutic Association will hold its fourth annual meeting at the Academy of Medicine in the city of New York, September 25, 26 and 27, 1894, under the presidency of Dr. William J. Herdman, of Ann Arbor. Members of the medical profession are cordially invited to attend.

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The American Public Health Association will hold its twenty-second annual meeting at Montreal, Canada, September 25, 26, 27 and 28, 1894, under the presidency of Dr. E. B. Lachapelle, of Montreal. The following topics have been selected for consideration at this meeting: 1. The Pollution of Water Supplies. 2. The Disposal of Garbage and Refuse. 3. Animal Diseases and Animal Food. 4. The Nomenclature of Diseases and Forms of Statistics. 5. Protective Inoculations in Infectious Diseases. 6. National Health Legislation. 7. The Cause and Prevention of Diphtheria. 8. Causes and Prevention of Infant Mortality. 9. The Restriction and Prevention of Tuberculosis. 10. Car Sanitation. 11. The Prevention of the Spread of Yellow Fever. Upon all of the above subjects special committees have been appointed; therefore all papers upon these topics should be presented to the appropriate committee in season, to be incorporated as a part of the report of the committee, if deemed advisable.

The executive committee announces the following additional subjects upon which papers are invited: 12. On the Education of the Young in the Principles of Hygiene. 13. Private Destruction

of Household Garbage and Refuse. 14. Disinfection of Dwellings after Infectious Diseases. 15. Inspection of School Children with reference to the Eyesight. Dr. Irving A. Watson, of Concord, N. H., is the secretary.

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The American Microscopical Society will hold its seventeenth annual meeting on Monday, Tuesday and Wednesday, August 13, 14 and 15, 1894, at the Polytechnic Institute, Brooklyn, N. Y.

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The American Association for the Advancement of Science will hold its next annual meeting at Brooklyn, N. Y., August 13, 14 and 15, 1894.

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The Medical Association of Central and Western New York will hold its annual meeting in Buffalo, Tuesday, October 2, 1894. A change of date has been made on account of the meetings of many of the national medical societies during the summer months.

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The Lehigh Valley Medical Association will hold its fourteenth annual meeting at the Hotel Penn, Reading, Pa., Thursday, August 9, 1894. The annual address before the association will be delivered by Dr. J. C. Wilson, professor of medicine in Jefferson Medical College ; subject, The Sequelæ of Influenza. A cordial invitation is extended to physicians.

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## Medical College Notes.

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The Birmingham Medical College, incorporated under the laws of Alabama, June 9, 1894, has recently sent out its first annual announcement. It is governed by a board of regents and has a well-equipped faculty, among which we notice that Dr. John D. S. Davis is professor of the principles and practice of surgery and clinical surgery ; Dr. W. E. B. Davis is professor of gynecology and abdominal surgery, and Dr. R. N. Cunningham is professor of physical diagnosis and clinical medicine. Birmingham is the ideal place for medical teaching in Alabama, and we have no doubt that this new college will prove a success.

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The University of Pennsylvania will soon add three new buildings to its plant, all to be connected with the medical department, thus

increasing its efficiency. These are the Agnew memorial wing to the hospital, the William Pepper clinical laboratory and a main ward to the maternity hospital, that will connect with the smaller wings already constructed. The clinical laboratory is endowed by Dr. William Pepper as a memorial to his father. It is to be used for post-graduate study and original scientific research. It will be four stories high with a basement. In the latter will be placed the heating and ventilating apparatus. The first, second and third stories will be fitted up as laboratories, and the fourth will contain rooms for the curator and janitor.

The Agnew memorial will be erected by the widow of Dr. D. Hayes Agnew, and will be equipped as a complete surgical department, without regard to expense.

The addition to the maternity hospital will contain a basement, kitchen and dining-room, while wards and baths occupy the three stories above, for the accommodation of patients previous to their treatment in the present wards.

The University of Pennsylvania will soon boast of the most complete medical department in America, if not in the world.

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In the Kansas City Medical College Dr. David R. Porter has resigned as professor of principles and practice of medicine and clinical medicine, and Dr. Joseph Sharp has been chosen to succeed him. Dr. J. D. Griffith has been appointed dean, vice Dr. D. R. Porter, resigned. Dr. Frank W. Rathbone has been chosen to fill Dr. Sharp's former chair, that of professor of therapeutics and clinical medicine. Dr. George Mosher has been made professor of obstetrics, and Dr. Herman Pearse, who is Dr. Lanphear's successor as editor of the *Medical Index*, has been advanced to the professorship of anatomy. Dr. Andrew Fulton takes the chair of operative and clinical surgery. Dr. T. J. Beattie is appointed lecturer on diseases of women and children, and Dr. A. H. Cordier is advanced to the lectureship on abdominal surgery.

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The medical department of the University of Wooster, at Cleveland, O., has a new hospital and dispensary almost completed. New laboratories also have been equipped, and that for bacteriology was ordered from Europe alone costing over $3,000. The faculty also has been greatly augmented in numbers, as will appear by consulting the card on page xxiii. of the Journal.

## Academy of Medicine Notes.

The treasurer's report, read at the annual meeting, showed an excellent condition of the Academy finances.

The officers of the Academy for 1894–1895 are: President, P. W. VanPeyma, M. D.; vice-presidents, C. C. Wyckoff, M. D., Marcell Hartwig, M. D., M. D. Mann, M. D., S. Y. Howell, M. D.; secretary, A. L. Benedict, M. D.; treasurer, E. A. Smith, M. D.; trustees, Roswell Park, M. D., F. W. Bartlett, M. D., H. R. Hopkins, M. D.; curator of museum, F. S. Metcalfe, M. D.; librarian, F. W. Bartlett, M. D.; council, the above mentioned officers with the secretaries of the different sections—Drs. Sherman, Gilray and Metcalfe—constitute the council of the Academy.

## Book Reviews.

An International System of Electro-therapeutics, for Students, General Practitioners and Specialists. By Horatio R. Bigelow, M. D., and Thirty-eight Associate Editors. Thoroughly illustrated. In one large royal octavo volume. 1,160 pages; extra cloth, $6.00 net; sheep, $7.00 net; half-Russia, $7.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street. 1894.

Everyone familiar with the literature of medicine during the last few years, must have become impressed with the fact that there has been a remarkable attempt on the part of a coterie of enthusiasts to force electricity into a prominence which no other alleged therapeutic agent possesses. One need not go far to find a reason for this. In the first place there is something about the mysterious that always appeals to certain minds. We remember an old dictionary, in defining mesmerism, stated it was "practised by the weakest, meanest, sometimes the most infamous of mankind." This will not apply to the electromaniacs of the present day, many of whom are thoroughly conscientious men and we hope all of them are honest in their purposes.

So little is known about electricity as a therapeutic agent, that the temptation is very great to appeal to it when other remedies fail, in the hope that by some magic, unseen and unknown influence it may effect a cure. It is an agent that is applied in all fashions and ways, from the simple toy and useless plaything called a pocket battery to the imposing static machine. With how much science these several machines are used depends largely, we

may say almost entirely, upon the man who applies them. But a factor in their successful employment is also to be found in the patient who receives this subtle and mysterious dosage. If faith goes a large way toward effecting cure with any agent, it certainly has an opportunity to work the marvelous with electricity.

These remarks are not intended to apply to certain well-defined and known principles of its application, as instanced in the electro-cautery, and, further, in its diagnostic uses in certain nervous diseases. But we speak more especially of its employment in the thousand and one conditions, all the way from sore nipples to fibroid tumors of the uterus.

A work of the magnitude of the present one which aims to be encyclopedic in character challenges criticism, first, from the men who create it,—editor and contributors—and, second, from the material that they present. The editor-in-chief of this system has been a frequent contributor to journalistic literature, but we are not aware that he has substantially advanced or improved the science of medicine by his writings. While many of the associate editors have achieved prominence, a number of them are quite unknown, and several of them are more or less visionary or enthusiastic in their advocacy of electricity as a therapeutic measure applicable to almost every known malady.

The introduction to the volume is written by William J. Herdman, of Ann Arbor, and contains, perhaps, all that need be said in an introductory chapter. We note, on page xxvi., that the "practicing" physician needs not to be a pharmacist, in order that he may "skillfully" administer his remedies, etc., which is a method of spelling not usually adopted in the present day. Professor Duff's section on electro-physics is a most instructive exposition of the subject, as is also the next section on animal electricity, written by Wesley Mills.

The faradic current, electro-magnetism, electro-massage and instruments, forms the subject of the next section, and is written by Engelmann, of St. Louis, of whom there is none more competent. Cataphoresis is interestingly handled by Peterson, of New York, who is one of the pioneers in this method, and whose experiments have been published in detail in the journals. Ectopic gestation forms the subject of a section written by Carter S. Cole and George W. Jarman, and revised by Egbert H. Grandin. Our opinion in reference to the employment of electricity in this condition, has often been expressed before in the columns of this journal, hence need not be repeated in detail here. We do not believe that electricity has any place here. This is essentially a surgical condition, and should be treated surgically, with all that the term implies. In an editorial review on Mr. Tait's lectures on Ectopic Pregnancy, on page 462 *et seq.*, Volume XXVIII., will be found a full elaboration of the subject, to which we refer those of our readers who may be interested.

Facial blemishes forms a brief but interesting section by

Henrietta P. Johnson. Electricity has a special application here, and we should be pleased to see the subject enlarged upon. Diseases of the nose, naso-pharynx, pharynx and larynx form another field where electricity is especially applicable, and is ably considered by Charles E. Sajous, the well-known editor of the Annual of the Universal Medical Sciences. Electro-thermal surgery—that is, the galvano-cautery considered with reference to its surgical uses—is ably considered by the veteran John Byrne, of Brooklyn, than whom there is no more competent authority. It must be confessed, however, that Byrne's most famous operation—amputation of the lower segment of the cancerous uterus—has been almost wholly supplanted by its total ablation per vaginam, known as vaginal hysterectomy. One of the most curious chapters in the book is contributed by Mary Putnam Jacobi, under the title of electricity in diseases of childhood. There is hardly any of the diseases treated of in this chapter by the distinguished author that do not belong to advanced youth or adult age. Yet it is learnedly written and is really one of the most interesting and instructive chapters in the book. We are at a loss to understand why the final section, that treats of adhesions in the acute and chronic inflammatory disorders of the female pelvis, has been presented. It is written by J. M. Baldy, of Philadelphia, who is well known as a surgeon of distinction, and who has little use for electricity, especially in the conditions of which this subject treats. He goes into considerable pathological detail in this chapter, but has little to say in regard to electricity. He sums up his opinion as follows:

> To speak dogmatically, we may say (1) that the electrical treatment finds its greatest usefulness in cases of simple, acute inflammation with exudation of plastic lymph; (2) that in chronic processes in which an acute inflammation with exudation has supervened, the latter is amenable to the treatment in just the same manner and to the same extent as a simple case without chronic disease; (3) that chronic, fully-organized adhesions are rarely benefited, and may be deleteriously influenced; and (4) that friable, unhealthy, degenerated deposits are not at all benefited by this mode of treatment.

The chapters mentioned represent whatever there is of excellence in the work, though in some of the others there are paragraphs of interest. An examination of the treatise cannot fail to impress the reader with the fact that an attempt is making to treat almost every disease of the economy, from the most trifling to the gravest, with electricity. And what is still more impressive is that enthusiasts are claiming cures in the majority of instances.

The American Electro-Therapeutic Association is an outgrowth of this enthusiasm, and has as much reason for existence as would an association formed on the basis of any other single therapeutic measure. This treatise is a natural sequence to that association, and we presume that its members will regard it with special favor as, indeed, many of them are contributors to its pages.

We observe that this system is intended for students, general practitioners and specialists, and, as these three classes cover the entire field of medicine, if they should all conclude to purchase the book it would exhaust the first edition speedily.

There is the usual display of illustrations, in which batteries and electrodes figure without number; the articles of Dr. Mills and Dr. Byrne, however, contain cuts of another nature. The volume is well printed, and, no doubt, will command ready sale.

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TUMORS—INNOCENT AND MALIGNANT. Their Clinical Features and Appropriate Treatment. By J. BLAND SUTTON, F. R. C. S., Assistant Surgeon to the Middlesex Hospital, London. In one 8vo volume of 526 pages, with 250 engravings and nine full-page plates. Cloth, $4.50. Philadelphia: Lea Brothers & Co., Publishers. 1894.

A new work on one of the most important pathological subjects, by one of the foremost pathologists and surgeons of London, must certainly attract considerable attention and be carefully perused by physicians generally. For many years the author has been collecting material and data for this work, and has made very interesting reading of an otherwise difficult and perplexing subject.

Virchow's classification is adopted with a few changes, notably the exclusion of the infective granulomata and the inclusion of the myomata, neuromata and angiomata under the histoid or connective tissue group. Sutton thus arranges tumors: (1) connective tissue tumors; (2) epithelial tumors; (3) dermoids; (4) cysts. Each group has several genera, each genus has one or more species, and of each species there may be one or more varieties. The connective tissue group is described at some length, notably the sarcomata, and each genus is described in the author's peerless style as to appearance, location, clinical features and treatment. Many rare and unusual cases and specimens, especially those preserved in the museum of the Royal College of Surgeons of London, are nicely illustrated.

Under the head of epithelial tumors are classed the papilomata, epitheliomata, adenomata and carcinomata—the latter only being regarded as cancers. Considerable attention is given the psammomata, occurring in the brain and spinal membranes, while the cholesteatomata are dismissed with the remark that it is urgently necessary to drop the name.

An interesting chapter follows the psammomata, on cutaneous horns, with illustrations of exceptional cases occurring in man and in the lower animals. These more properly come under the head of freaks. The carcinomata and adenomata are treated together, both constructed upon the type of secreting glandular tissue, but differing in the regularity of their structures. The various organs of the body prone to carcinomatous encroachment are discussed and treatment is advised. In the majority of cases the knife is recommended, and many statistical tables are presented giving the result of operative procedures.

The chapters on dermoids are very interesting, especially that devoted to the branchial clefts. These are congenital fistulous openings on the side of the neck, and have been cited by evolutionists as belonging to the anatomical defects which link the human species with the finny species. They have been discovered in man, horses, sheep, pigs and chicks.

The chapter on teratoma contains malformations, parasitic fetuses, supernumary limbs, etc. The portrait of Laloo, exhibited a short time ago in one of Buffalo's amusement halls, is here reproduced.

The remaining chapters are devoted to a very careful study of cysts, of which the author describes and generalizes retention cysts, tubulo-cysts, hydroceles, glaced cysts, and the false cysts, as diverticula, bursal, neural cysts, and parasites.

One cannot close this book without a feeling of gratitude for the completeness and simplicity with which each subject is treated. It serves very well as an encyclopedia on tumors and a key to the detection and classification of unusual forms of tissue development.

The publishers have aided materially in making the volume an unqualified success. W. C. K.

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Biography of Eminent American Physicians and Surgeons. Edited by R. French Stone, M. D., author of Elements of Modern Medicine, Surgeon-General National Guard, State of Indiana; Consulting Physician to the Indianapolis City Hospital and Dispensary; Ex-President of the Marion County Medical Society; Member of the Indiana State Medical Society and American Medical Association; formerly Professor of Materia Medica, Therapeutics and Clinical Medicine in the Central College of Physicians and Surgeons, etc. Illustrated with hundreds of fine photo-engraved portraits and autographs. Published by Carlon & Hollenbeck, of Indianapolis, in one large 8vo volume, containing 751 double-columned printed pages, and to be sold by subscription only. Price, in cloth, $8; leather, $9, and half morocco, $10, sent c. o. d., express charges prepaid.

But few attempts have been made to publish biographical cyclopedias of American physicians. Dr. James Thatcher, of Massachusetts, was first to perform this duty, in a work published in 1828. Next came the work edited by Dr. Stephen W. Williams, published in 1845, which was supplementary to that of Dr. Thatcher. Dr. Samuel D. Gross was the third to enter this field, and the work he edited was published in 1861, while the fourth was published in 1878 by Dr. William B. Atkinson. The fifth venture in this line is the work before us, which is offered to the profession as the most complete encyclopedic medical biography yet written.

It contains a preface and an introductory chapter, both of much interest. The biographical sketches are arranged alphabetically,

many of which are carefully written and enter into great detail. Some of them, however, are carelessly prepared and give fulsome praise in general or in special, which is out of place in a work of this kind. This cannot be charged against the editor as a fault, but is due rather to the contributor—the subject of the sketch or an enthusiastic friend.

In our opinion, a biographical sketch in a work of this kind should be a plain recital of facts, beginning with the birth of the subject and giving all the prominent data of his life down to the present, without any elaboration or multiplication of adjectives. It is gratifying to know that most of the biographies in this work are free from the objectionable features referred to.

The chief criticism of this book we are inclined to regard as lying in its illustrations. These are reproductions from photographs, or other likenesses, and, while some of them are excellent, many of them are artistically deficient and do but sad justice to the subject that they are intended to illustrate.

The sketches of some of the historic characters in medicine, now dead, are of a high order and serve to enhance the value of the work. Those of David Hosack and Benjamin Rush are exceptionally fine and invaluable.

The value of this work is beyond question. It is needed for reference in the office of every progressive physician, while teachers, authors, editors and scientific writers cannot afford to be without it. All medical libraries, too, should make haste to obtain it, while general libraries must assuredly place it upon their shelves.

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AN ILLUSTRATED DICTIONARY OF MEDICINE, Biology and Allied Sciences, including the Pronunciation, Accentuation, Derivation and Definition of the Terms used in Medicine, Anatomy, Surgery, Obstetrics, Gynecology, Therapeutics, Materia Medica, Pathology, Dermatology, Pediatrics, Ophthalmology, Otology, Laryngology, Physiology, Neurology, Histology, Toxicology, Dietetics, Legal Medicine, Psychology, Climatology, etc., etc., and the various Sciences closely related to Medicine, Bacteriology, Parasitology, Microscopy, Botany, Zoölogy, Dentistry, Pharmacy, Chemistry, Hygiene, Electricity, Veterinary Medicine, etc. By GEORGE M. GOULD, A. M., M. D., Author of The Students' Medical Dictionary, 12,000 Medical Words Pronounced and Defined, The Meaning and the Method of Life; Editor of *The Medical News;* President, 1893-1894, American Academy of Medicine; one of the Ophthalmologists of the Philadelphia Hospital. Based upon recent scientific literature. Double-columned quarto, pp. xvi.—1633. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894. Price in sheep or half-Morocco, $10 net; half-Russia, thumb index, $12 net.

This may be fittingly termed the period of the renaissance of medical word-book making. For forty years beginning with 1839 the professional public chiefly depended upon Dunglison's Medical Dictionary for an explanation of words and phrases used in medi-

cine. This work grew in its fourth edition to contain about 770 octavo pages, and claimed, not without justice, to be a work "in which the student may search without disappointment for every term that has been legitimated in the nomenclature of the science."

It is but a little over ten years ago that medical lexicographers, recognizing the increasing demands of the science, began to bestir themselves in the preparation of new dictionaries that should more adequately cope with the rapidly increasing nomenclature of medicine. Since then there has sprung up somewhat suddenly a great excitement, so to speak, similar to that which follows upon the discovery of a new bonanza, and medical lexicographers have literally had the floor for a decade, more or less.

The work of Gould, which is before us, challenges at the outset admiration and respect both for its handsome appearance and the vastness of its contents. In the first place the type selected is of a size and kind that does not tire the eye ; the word to be defined is displayed and the definitions are given in smaller faced letters. The origin of words is given whenever necessary, while their pronunciation and orthography are fully elaborated. We are more than gratified to observe that diphthongs have been eliminated wherever practicable, and the practicability of this change is constantly increasing. The table of abbreviations is a large one and needs to be carefully studied lest confusion arise.

An excellent arrangement is to give, as Gould has done, a table of prefixes and suffixes used in medical terms. Besides these useful tables that precede the dictionary proper, there are many others interspersed throughout the text in their appropriate places that serve to aid the student —we use the word in its most comprehensive sense—in an understanding of the subject upon which information is sought. For example, beginning on page 217 and running to 229 inclusive, is an illustrated table of bones, that serves as a most convenient aid to the memory with reference to this important anatomical subject, and we should advise every author of works on human anatomy to follow Gould's example and publish a similar table. We might say a word, too, in commendation of all the anatomical tables throughout the book if it were necessary. There are, however, some tables that we think might have been omitted without doing harm to the work and that would thus have reduced its size. We might instance an example to illustrate this point in the table of conspectus of pigments. The suture illustrations are valuable because no one can understand the application of a suture alone by its description.

We cannot go into an analysis of the definition of words within the space here allotted us, but we may affirm that Gould has given for the most part the clearest and most concise definitions that are consistent with the purposes of his work ; and while one might here and there wish that he had either said more or fewer words on a particular subject or subjects, we cannot but believe that the

profession, by and large, will accept this dictionary as the best single volume lexicography extant, and it must of necessity find its way to the book shelves of every scientific man.

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A Text-Book on Diseases of the Eye. By Henry D. Noyes, A. M., M. D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College, Executive Surgeon to the New York Eye and Ear Infirmary, etc., etc. Second and revised edition, illustrated by five chromo-lithographic plates, ten plates in black and colors and 269 wood-engravings. Pp. xviii.—816. New York: Wm. Wood & Co. Price in cloth, $6.00; leather, $7.00. 1894.

Text-books indigenous to America have never been very numerous on diseases of the eye. In 1823, George Frick, M. D., of Baltimore, published a brief "treatise;" in 1837, S. Little, Jr., M. D., surgeon to Wills Hospital, of Philadelphia, issued a concise but well written "manual," which passed through a second and much enlarged edition in 1848; in 1832, John Mason Gibson, M. D., of Baltimore, wrote a very poor "condensation;" in 1850, Henry Howard, M. R. C. S. L., of Montreal, Canada, presented a good compilation; in 1862, Henry W. Williams, M. D., of Boston, gave to the profession a "guide" which has passed through several editions, and to the present time has held its place as most practical and trustworthy. These were followed later by Noyes (Woods Library, 1881), Schell (Philadelphia, 1881), Mittendorf (New York, 1882), Alt (St. Louis, 1884), Hansell & Bell (Philadelphia, 1892), DeSchweintz (Philadelphia, 1892), Norris & Oliver (Philadelphia, 1893), and some minor compilations.

This list is not a long one, and among it very few authors can be found who have left distinct marks of their own opinions and conclusions. We do not detract from the value of the masterly treatise of Norris & Oliver, or the excellent compilations of DeSchweintz and Mittendorf, or the very safe and practical "guide" of Williams, when we say that Noyes's text-book stands first and above all the others in representing the author's personal views. Dr. Noyes is a man of vast experience. He is an original thinker and close observer. He respectfully considers the conclusions of others and tests their validity whenever practicable. Out of this rich storehouse of the experience of himself and others, he has elaborated this text-book.

This edition may be considered in reality as the third, although it is known as the second, the first being the volume contributed to "Wood's Library." It has grown and improved with each new issue. It is much better now than ever before, as it has undergone thorough revision, and every branch of the subject has been brought up to date. The chapters dealing with refractive and muscular anomalies, glaucoma, granular conjunctivitis and the optic nerve, have been especially amplified. Under the heads of Asthenopia, and Binocular Vision and its Disturbances, will be

found clear statements of the results of the author's experiences regarding muscular errors and muscular therapeutics, subjects so engrossing to the attention of ophthalmologists at the present time. The author's views are here somewhat conservative, and may be questioned by some; but, based as they are upon a study extending over many years, and upon thousands of cases of muscular iniquilibrium, they cannot be ignored.

This treatise is most complete in every respect. Scarcely a subject in ophthalmology can be recalled that is not here treated. Not only are the author's views presented, but constant reference is also made to those of others, and the sources of information are indicated either in the body of the text or in foot-notes. Notwithstanding the fact that a few literary blemishes mar the "finish" of the work, it is a credit to American medical literature and to scientific ophthalmology. In short, the work emanates from an independent and judicious mind; its opinions are grounded in an immense and well-weighed experience; it is complete; it is conservative, but not antiquated; it is safe.

The commendations which the JOURNAL gave in June, 1890, to the previous edition can but be emphasized now. A. A. H.

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GONORRHEA: Being the Translation of Blenorrhea of the Sexual Organs and Its Complications. By DR. ERNEST FINGER, Docent at the University of Vienna. One volume, of 330 pages, octavo, illustrated by numerous wood engravings, and by seven chromo-lithographic plates. Third revised and enlarged edition. Bound in muslin, gold lettered, $3.00. New York: William Wood & Company. 1894.

Since the investigations of Neisser, who first pronounced gonorrhea an infectious disease, an increased interest has attached to its study and new responsibilities pertained to its treatment. We have on several occasions in the columns of the JOURNAL called attention to the dangers that lurk in a neglected or uncured gonorrhea. Since the discovery of the gonococcus by Neisser and the warning of Noeggerath regarding the dangers of infection from latent gonorrhea, the teachings of the schools have been entirely reconstructed and venereal practice has changed front.

Prior to the time referred to, syphilis was regarded as the most important and dangerous venereal disease. Then clap was regarded as a mere trifle that a few days dosing with cubebs and copaiba and a number of injections of a solution of sulphate of zinc would assuredly cure. Or, if in a few instances a gleet remained this was regarded as non-infectious and of little or no consequence. Even now we see paraded in the newspapers advertisements of big G, in which it is announced as a sure cure for this distressing and dangerous malady.

When one contemplates the myriads of innocent women who have been infected through this abominable doctrine and practice,

and whose lives when not destroyed have been made utterly miserable, whose pus tubes and aching ovaries have told a tale of woe that ought to melt the stoutest heart, we feel as though indictment and imprisonment would be a light punishment for doctors who thus treat gonorrhea and for newspaper proprietors who admit big G to its advertising pages.

Finger attacks this disease from the most modern standpoint. He gives its history and etiology in two introductory chapters, and then considers blenorrhea in the male and its complications, beginning with urethral blenorrhea, on which he offers at the outset timely anatomical and physiological remarks. Under acute urethritis the real consideration of the subject is reached, and in this chapter infection, acute anterior and posterior urethritis, together with diagnosis, prognosis and treatment, are exhaustively considered and most scientifically handled. But we think the chapter on chronic urethritis is the most important in the book—the most important because it is apt to be the most neglected ; and, again, because its neglect leads to such serious consequences ; and still again, the most important, because here the truly earnest physician will find ways and methods for the cure of this obstinate and subtle malady. Complications in the male and in the female are considered in the next two chapters, and, finally, a chapter is devoted to complications of blenorrhea in both sexes.

It has been reserved for Finger to make the first systematic anatomical examinations of chronic urethritis, and he has given in well prepared colored plates an excellent picturing of the subject. Every general practitioner, especially those in the country, should possess this book. It is an intelligent, safe and simple setting forth of the subject, and this third edition brings it down to the present date.

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A Manual of Practical Obstetrics. By Edward P. Davis, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic ; Clinical Professor of Pediatrics in the Woman's Medical College ; Clinical Lecturer on Obstetrics and Gynecology in the Jefferson Medical College, etc., etc. Second edition, revised and enlarged. With 134 illustrations and sixteen full-page plates, several of which are colored. Small 8vo, pp. xii.—351. Price, $2.50. P. Blakiston, Son & Co., 1012 Walnut street. 1894.

The importance attached to the study of obstetrics is accentuated very much when a second edition of a manual like this one is demanded so soon after the original appearance of the work. No matter how many elaborate treatises one has in his library he must needs have manuals as well, and of all the obstetric manuals that we have seen, this one approaches nearer to the ideal than any other.

The illustrations are of an intelligent order, some of which are new. The present edition considers symphyseotomy in a clear but brief manner. So much attention is attached to this subject

in view of its recent revival as an alternative in narrow pelves, that we could wish the author had been a little more elaborate in its consideration.

We are glad to notice that Dr. Davis adopts the term puerperal sepsis in preference to the old and misleading one of puerperal fever. We commend this manual as admirably filling the place for which the author has constructed it.

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A Treatise of Headache and Neuralgia, including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. Leonard Corning, M. A., M. D. Consultant in Nervous Diseases to St. Francis' Hospital; Fellow of the New York Academy of Medicine; Member of the New York Neurological Society, etc. With an Appendix. Eye Strain, Cause of Headache. By David Webster, M. D., Professor of Ophthalmology in the New York Polyclinic; Surgeon to the Manhattan Eye and Ear Hospital, etc., etc. Illustrated. Third edition. Small 8vo, pp. 275. New York: E. B. Treat, 5 Cooper Union. London: H. K. Lewis, 136 Grower street. 1894. Price, $2.75.

The fact that a third edition is called for by the profession shows that the author has succeeded in supplying a work adapted to the needs of the busy practitioner.

This edition differs from the previous one in the addition of an appendix on eye strain as a cause of headache, by David Webster, M. D. This considers headache due to refractive errors, impaired accommodation and insufficiency of the extrinsic ocular muscles. He merely presents clinical reports, but does not enter into argument. The book should be well received by the profession.

J. W. P.

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Pain in its Neuro-Pathological, Diagnostic, Medico-Legal and Neuro-Therapeutic Relations. By J. Leonard Corning, A. M., M. D., Consultant in Nervous Diseases to St. Francis' Hospital, St. Mary's Hospital, the Hackensack Hospital, etc., etc. Illustrated. Small 8vo, pp. 328. Price, $1.75. Philadelphia: J. B. Lippincott Company. 1894.

The laconic title of this book strikingly reminds one of Mr. Hilton's classic—Rest and Pain. This author, however, limits his treatise to the neuro-pathological significance of pain as a symptom and then considers it in its diagnostic medico-legal and neuro-therapeutic relations. In other words, it may be asserted that this work is devoted to a consideration of the relation of pain to neurology.

In part first, consisting of nine chapters, the physiological, pathological and clinical relations of pain to disease are considered, while in part second, consisting of eleven chapters, is found an exposition of the special therapeutics of pain. The importance of learning to place a proper estimate upon the value of pain as a diagnostic symptom is very great, and it often becomes essential

to treat pain as a symptom primarily, no matter how erroneous in theory this may seem. Pain is often so severe as to becloud the whole case and to prevent a proper reading of the phenomena of disease. Pain oftentimes masks the symptoms in a way to mislead or to precipitate error. Hence, it often becomes the first duty of the physician to address himself to the control of pain before venturing either diagnosis or intelligent treatment.

It is not to be understood by the foregoing remarks that we would advise an indiscriminate resort to opium or its preparations for the subjugation of pain. There are many other excellent methods of subduing this distressful symptom, and, speaking generally, they should be resorted to in preference to opiates. Nevertheless, in critical conditions, the depressing effect of pain is so great as to justify the most extreme measures in combatting.

The work before us furnishes an aid to the better understanding of pain in its relations to neurology. Though many will differ from the author in some of his observations, yet the book possesses interest and should command the patient consideration of the profession of medicine.

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PRACTICAL PATHOLOGY. A Manual for Students and Practitioners. By G. SIMS WOODHEAD, M. D., F. R. C. P., Ed.; Fellow of the Royal Society, Edinburgh ; Director of the Laboratories of the Conjoint Board of the Royal Colleges of Physicians (Lond.) and Surgeons (Eng.); Pathologist to the Royal Infirmary, Edinburgh. With 195 colored illustrations. Third edition. Philadelphia: J. B. Lippincott Co. 1892.

The author of this excellent treatise begins at the very beginning of pathological investigation, by describing in the first few chapters the instruments and arrangements necessary for conducting an autopsy, the measurements and weights of the various organs, methods of preservation and for hardening preparatory to microscopical examination. The different reagents and formulæ are carefully given and the technique explained in a painstaking manner.

Following these chapters on pathological histology come the inflammatory changes in the various organs and tissues, and the description of the tumors and animal parasites. Particularly interesting are the beautiful colored illustrations of the diseased tissues. These are not only pleasing to the eye, but are strikingly exact reproductions of what the microscope reveals. For instance, the illustration of a myxoma with picro-carmine stain, on page 539, is as natural as anything could be, and so throughout the work, this feature is equally well carried out. The descriptions of the various processes of disease are put in plain, careful language, avoiding ambiguity and redundancy.

On the whole, it is an excellent work for beginners in pathology and is to be recommended for the class-room and laboratory.

The publishers have done their best in making it a success, and a perusal of its pages will convince any one that they have succeeded admirably. W. C. K.

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Clinical Diagnosis. By Albert Abrams, M. D., Heidelberg; Professor of Pathology, Cooper Medical College, San Francisco; Pathologist to the City and County Hospital, San Francisco, etc., etc. Third edition, revised and enlarged. Illustrated. Small 8vo, pp. 273. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. 1894.

This work on clinical diagnosis having passed to a third edition has become established in the mind of the profession as a useful guide to the study of this subject. This edition contains an amplification and revision of the former ones, and there is added to it many synoptic tables, as well as a chapter on insanity, together with a summary of recent methods of diagnosis. The study of clinical diagnosis is an important beginning to the understanding of disease. No intelligent therapeutics can be established without a thorough diagnosis, and a treatise on the subject may well constitute one of a series of medical classics as in the present instance.

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Essentials of Practice of Pharmacy, arranged in the form of Questions and Answers. Prepared especially for pharmaceutical students. Saunders' Question Compends, No. 18. Second edition, revised. By Lucius E. Sayre, Ph. G., Professor of Pharmacy and Materia Medica of the School of Pharmacy of the University of Kansas. Duodecimo, pp. ix.—200. Price, $1.00. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

Of all the branches of medicine, chemistry and pharmacy, perhaps, are least understood, probably because they have not been thoroughly taught until of late. The medical student should know something of pharmacy, and this little book is well calculated to aid him in memorizing the essentials of that art. The student of pharmacy will find it invaluable.

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Transactions of the American Dermatological Association at its seventeenth annual meeting, held at the Hotel Pfister, Milwaukee, Wis., on the 5th and 6th of September, 1893. Edited by George Thomas Jackson, M. D., secretary. Octavo, paper, pp. 82. New York. 1894.

This official report of the proceedings of this excellent association is well prepared, and contains some excellent illustrations. Much of the work has been already published in the *Journal of Cutaneous and Genito-Urinary Diseases*, hence need not be further commented upon at this time. A list of the publications of the

members during the year ending September 1, 1893, is added for reference. The book should be bound in more substantial form.

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## BOOKS RECEIVED.

Small Hospitals. Establishment and Maintenance. By A. Worcester, A. M., M. D., and Suggestions for Hospital Architecture with plans for a small hospital. By William Atkinson, Architect. Duodecimo, pp. vi.—114. Price, cloth. $1.25. New York: John Wiley & Sons, 53 East Tenth street. 1894.

Macrobiotic or Our Diseases and Our Remedies. For Practical Physicians and People of Culture; by Julius Hensel, Physiological Chemist. Translated by Prof. Louis H. Tafel of Urbana University. O. From the second revised German edition. Octavo, pp. v.—201. Published by Boericke & Tafel, 1011 Arch street, Philadelphia.

Text-Book of Medical and Pharmaceutical Chemistry, By Elias H. Bartley, B. L., M. D., Professor of Chemistry and Toxicology in Long Island College Hospital; Dean and Professor of Organic Chemistry in the Brooklyn College of Pharmacy, etc., etc. Third edition. revised and enlarged with eighty-four illustrations, Small 8vo, pp. xiv.—684. Price, $3.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894.

Index—Catalogue of the Library of the Surgeon-General's Office' United States Army. Authors and Subjects. Vol. XV., Universidad—Vzoroff. Quarto, pp. 842. Washington: Government Printing Office. 1894.

The Graphic History of the Fair. Containing a sketch of International Expositions, a review of the events leading to the discovery of America and a History of the World's Columbian Exposition held in the City of Chicago, State of Illinois, May 1 to October 31, 1893. Describing the notable features in the several departments, the sculpture of buildings and grounds, the department edifices, the state and foreign buildings and pavilions, the exhibits, etc., etc. With nearly 1,000 illustrations. Chicago: The Graphic Company, 358 Dearborn street. 1894.

Where to send Patients Abroad for Mineral and other Water Cures and Climatic Treatment. By Dr. Thomas Linn, Doctor of Medicine, Faculty of Paris; Doctor of Medicine and Surgery, University of New York, etc., etc. Price, paper, 25 cents; cloth, 50 cents. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. 1894.

A Hand-Book of Medical Microscopy, for Students and General Practitioners, including chapters on Bacteriology, Neoplasms and Urinary Examinations. By James E. Reeves, M. D., author of A Practical Treatise on Enteric or Typhoid Fever. With a glossary and numerous illustrations (partly in colors). Price, $2.50, net. Pp. xv. —237. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894.

Nineteenth Annual Report of the Secretary of the Board of Health of the State of Michigan, for the fiscal year ending June 30, 1891. Pp. cxlvii.—346. Lansing: Robert Smith & Co., State Printers and Binders. 1894.

## Literary Notes.

The *St. Louis Clinique* has passed into the hands of Dr. Emory Lanphear, professor of surgery in the College of Physicians and Surgeons. Dr. Lanphear will conduct the journal in the interests of that school and of the medical profession of the West.

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The *American Journal of Insanity*, which has been edited and published at the Utica State Hospital for the past fifty years, has lately been sold and transferred to the American Medico-Psychological Association, of which society it will henceforth be the accredited organ.

The *Journal* will be edited *ad interim* by a publication committee consisting of Dr. Edward Cowles, president of the association, Boston, Mass.; Dr. Henry M. Hurd, secretary of the association, Johns Hopkins Hospital, Baltimore, Md.; and Dr. Richard Dewey, Chicago, Ill., with the last named gentleman in immediate editorial charge.

Until further notice it will be published in Chicago, Ill.

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The *Doctor and Druggist* is the title of a neat looking little magazine published in St. Louis, the first number of which appeared July 15, 1894. The yearly subscription is $1, and the address is 2622 McNair avenue.

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The *Woman's Medical Journal*, published at Toledo, O., is a magazine that we have a fondness for on account of its high professional and literary tone; but we do wish that it would eliminate its inset advertisements. These neither benefit a journal nor its advertisers, but, on the contrary, often damage both.

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The *Lehigh Valley Medical Magazine* is one of the best edited as well as one of the best printed magazines that comes to our table. The editor very properly refers to the success of the magazine in its last issue, which was the concluding number of its fifth volume. He says the magazine has been forced to make its own standard because among the many medical journals of the country there was not one that could serve as a model. True! and we congratulate the accomplished editor in having achieved a deserved measure of success.

The *Columbus Medical Journal*, published and edited for the last twelve years by Dr. J. F. Baldwin, has passed into the hands of Dr. R. Harvey Reed, and will hereafter be published as a bi-weekly. The first issue under the new *regimé* appeared July 10, 1894, and is a handsome specimen of journalism.

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The *Maryland Medical Journal* has established a column entitled Current Editorial Comment, in which is given some of the bright thoughts of the contemporary medical press. This is an excellent plan and serves to keep medical journals more in touch with each other as well as with the profession.

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The *Medical and Surgical Reporter* has a special department entitled Current Literature Reviewed, which is in charge of Drs. Elliston J. Morris and Samuel M. Wilson. In this subdivision of the journal three or four magazines are taken up each week and a summary of their important papers are given. We commend this as an excellent plan.

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An important new book just announced is Practical Urinalysis and Urinary Diagnosis. A manual for the use of practitioners and students, with numerous illustrations, including colored photo-engravings. By Charles W. Purdy, M. D., of Chicago, author of Bright's Disease and Allied Affections of the Kidneys ; Diabetes : Its Causes, Symptoms and Treatment, etc. A one-volume practical and systematic work of about 350 crown-octavo pages, in two parts, subdivided into twelve sections, and an appendix.

The well-known house of The F. A. Davis Company, 1914 and 1916 Cherry street, Philadelphia, will issue the work in September, 1894. The book will be first-class in quality of paper, press-work and binding, and the price most reasonable—namely, $2.50, net, in extra cloth.

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The Author of Gallegher.—Philadelphia is Richard Harding Davis's birthplace, writes Edward W. Bok in an interesting sketch, with portrait, of the popular young author in the August *Ladies' Home Journal.* His education began at the age of nine at the Episcopal Academy in that city. In 1882, he became a student at Lehigh University. There he became an enthusiastic football player, and there, too, did his first writing as editor of the

college paper. He wrote a dozen stories for the paper, and afterward collected them, put them into a book and paid $90 to get the book published. It had a limited sale—very limited. From Lehigh he went to Johns Hopkins University for a year, and there he wrote, reckoned professionally, his first story, Richard Carr's Baby, a tale with football tendencies. It appeared in *St. Nicholas.*

In 1887, the young student returned to Philadelphia and became a reporter, taking assignments from several newspapers, and earning the princely salary of $7 a week.

Mr. Davis is well, almost magnificently, built, standing six feet high, weighing 180 pounds, and with a physical strength that many envy. He has a frank, boyish manner about him, and is conscious of his success, as is only natural and quite pardonable, but he is not so in any obtrusive way. His manner of talking is quick, his laugh is of the heartiest, and he is an ideal companion. Popular in society, he is sought by everyone and lionized generally. But, with all his success, he is conscious only of a desire to give to the reading public a book or a story that will be superior to the last.

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Dr. Bransford Lewis has retired from the active editorial management of the *Medical Fortnightly*, but remains president of the Fortnightly Press Company. The journal is now edited by Dr. Frank P. Norbury and Dr. William M. Robertson.—*Medical Bulletin.*

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Dr. H. C. Minor has retired from the management of the Hot Springs *Medical Journal.* Dr. J. T. Jelks has become associated with the editorial staff and management of the same journal.—*Medical Bulletin.*

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## Miscellany.

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Laxol is a new preparation of castor oil that is absolutely palatable, as will be seen by reference to advertising page xiii., where it appears for the first time.

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Frederick P. Stearns & Co., of Detroit, are among the new advertisers in this issue, and their card will be found on page xxiv. of the advertising forms.

Mortality of Tuberculosis.—Dr. Lagneau said that his investigation into the relationship existing between occupations and the development of tuberculosis showed that the greatest number of deaths from phthisis occurred in workers exposed to irritating substances in the respired air. In Switzerland, ten out of 100 stone cutters die from phthisis. In England, 1,000 deaths occurring in these workers, 340 were from phthisis. Tuberculosis makes cruel onslaught likewise in those individuals who habitually occupy a bent posture at their occupations, and in those who live sedentary and intellectual lives. Of 1,000 deaths in Italy among students and seminarians, 450 died of phthisis—that is, nearly one-half. In England, of a similar number of deaths in printers, 430 died of phthisis.

On the other hand, statistics show that it is quite exceptional for this disease to be the cause of death of those who live in open air. In Switzerland, of 1,000 deaths occurring in outdoor laborers and farmers, not more than one or two die from phthisis. A similar number of deaths in Italy among shepherds and farmers shows only from forty-four to fifty-five deaths.

In France the sanitary statistics gathered from 662 towns show that the more the population is conglomerated, so in proportion are the inhabitants gravely infected with tuberculosis.—*Medical Record.*

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The Association of American Medical Colleges.—The following resolutions were adopted at a meeting held in San Francisco, Cal., June 7, 1894 :

*Resolved*, That colleges, members of this association, shall require of all matriculates an examination as follows :

1. An English composition in the handwriting of the applicant of not more than 200 words ; said composition to include construction, punctuation and spelling.

2. Arithmetic, fundamental rules, common and decimal fractions and ratio and proportion.

3. Algebra—through quadratics.

4. Physics—elementary—Gage.

5. Latin—an amount equal to one year's study, as indicated in Harkness' Latin reader.

(The above resolution does not apply to students exempt from the entrance examination, as per Sec. 2, Art. III.)

*Resolved*, That the following classes of students be recognized as entitled to apply for advanced standing in colleges members of this body.

*a.* Such graduates of recognized colleges and universities as have completed the prescribed courses in chemistry and biology therein.

*b.* Graduates and matriculates of colleges of homeopathy.

*c.* Graduates and matriculates of colleges of eclectic medicine.

*d.* Graduates and matriculates of colleges of dentistry requiring two or more courses of lectures before conferring the degree of D. D. S.

*e.* Graduates and matriculates of colleges of pharmacy.

*f.* Graduates and matriculates of colleges of veterinary medicine.

It is proved, however, that the above class of students be required to comply with the provisions of the entrance examination and to prove their fitness to advance standing by an individual examination upon each branch below the class he or she may desire to enter.

*Resolved*, That students graduating in 1889 or subsequent classes be required to pursue the study of medicine four years and to have attended four annual courses of lectures of not less than six months' duration each.

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The Mr. Tait Fund.—On July 5th the subscribers to this fund met at the residence of Dr. Glover, Highbury, the chairman of the committee. The meeting was representative, and letters were read from Sir Dyce Duckworth, Dr. John Williams, Mr. Tom Smith, Mr. Marsh, Dr. Brunton, and others, expressing regret at being unable to attend. Dr. Glover, in the name of the subscribers, presented Dr. Tait with a cheque for £162 19s. 3d., which with £2 19s. 9d. expenses for circulars, postage, etc., made £165 19s. 0d., the sum raised. This represents about five-sixths of Dr. Tait's legal expenses. The chairman, while enjoining on all practitioners the duty of becoming members of defense unions, expressed the hope that if such actions should still occur they might always have in the defendant the advantage they had in this case—one whose history and whose character were a sufficient reply to all charges. The interest of the occasion was completed by the presentation, on behalf of Dr. Tait's patients, of a very handsomely illuminated address, expressing unabated respect for Dr. Tait, and signed by about 200 of his *clientéle.* The address was presented by Mr. Wm. Muller, of Highbury New Park. Dr. Trait made a very graceful and suitable reply. . . . .—*British Med. Jour.*, July 14, 1894.

# Buffalo Medical and Surgical Journal

Vol. XXXIV. SEPTEMBER, 1894. No. 2.

## Original Communications.

### ON THE PROGNOSIS AND TREATMENT OF PROLIFEROUS INFLAMMATION OF THE MIDDLE EAR.

By LUCIEN HOWE, M. R. C. S., Eng.

As the nomenclature of diseases of the middle ear is not as clear as it should be, a word of introduction to this paper is necessary in order to point out the class of cases here referred to. The non-suppurative inflammations of the middle ear are undoubtedly due, to a great extent, to that pathological condition which we call catarrhal. But the word catarrhal is misleading, both to the laity and to the profession, giving an erroneous idea as to the cause upon which the disease depends and the treatment indicated. It is better, therefore, to use the word proliferous, as the translation of the German *Wucherung*, as Roosa has done, to indicate that very large class of cases which begin as a simple inflammation of the mucous membrane of the middle ear, though sometimes without any such condition distinguishable at an early stage, but where there results a thickening of that membrane. This inflammation usually extends from the pharynx to the Eustachian tube and into the middle ear, producing changes in the membrana tympani, especially so impeding the movement of the ossicles as to produce imperfect hearing, and finally leading to a series of pathological changes which result in more or less complete deafness.

It is not my intention to give any description of the clinical history or symptoms of these cases. Indeed, some patients suffering from the proliferous form have no pain nor anything else to attract attention, unless it be a singing, roaring or buzzing sound—the tinnitus. This, in fact, is often the only symptom which gives any discomfort, but, when the hearing is tested, the patient finds that one ear is partly or entirely deaf, and that a

similar difficulty has perhaps begun to show itself on the other side.

It is unquestionably the fact that the most important class of cases of impaired hearing are those due to this form of chronic inflammation of the middle ear. The disease in any variety is important because of its frequency, its insidious course and its tendency to result in deafness more or less complete. As to its frequency, statistics vary somewhat, but it is safe to say that considerably more than 45 per cent. of all the cases presenting themselves for treatment are those of chronic proliferous inflammation of the middle ear.

In forming an opinion as to the prognosis of any special case, of course, the anatomical condition is of first importance. If the drum head is but slightly retracted, if inflation of the middle ear shows that the ossicles are easily movable, especially if the tube be open, and the hearing but slightly impaired, of course, the prognosis is favorable. On the other hand, as these factors change, the prognosis naturally must also be varied. To touch upon the importance of each of these points would be to elaborate the pathology of this whole class of diseases. In so short a paper as this, a description of the changes in the middle ear itself must be left out of account, these being different in each individual, and we must content ourselves with a few general but exceedingly practical considerations which influence the prognosis in these cases. Among these I may mention, foremost, the age of the patient.

When any such inflammation of the middle ear occurs in early life, it is almost invariably amenable to treatment. Then the prognosis is excellent. Ordinarily, too, it is so in the more or less acute stage, and many of the patients who apply with the hearing distance reduced to half, quarter or even a tenth of the normal, can be made to hear, ultimately, perfectly well, as measured by the most exact tests. Even a little later in life the prognosis is good, when the disease is recognized in an early stage and where efforts are pursued in a thorough and intelligent manner during a considerable time.

In the second place, the question of hereditary tendency is also quite an important element in estimating the prospects for the patient. We have long ago learned that this inherited tendency to deafness is not any mysterious curse or ban placed upon certain families. But, as in a large proportion of all cases of inflamma-

tion of the middle ear, the difficulty commences in a Eustachian tube smaller than normal or not as straight as it should be, so do we find, in certain families, the Eustachian tube not only smaller than normal but also more liable to collapse, or, by its slightly irregular form, also more liable to the retention of any mucus which may accumulate in it. As such tubes have a greater tendency to become closed than others, members of these families are more liable to deafness at an early age, and to have it in a more obstinate form, than those where this peculiarity does not exist. The fact is, as I repeat, that there is, with many, an inherited tendency to inflammation of the middle ear, due to this or similar physical causes, and this tendency forms an important element in estimating the prospects of the patient for the cure or arrest of the trouble with which he is afflicted.

Various other elements must be taken into account in estimating the prospects of the patient. The condition of the health is not to be forgotten, for anemic individuals and those exhausted by illness have less recuperative power, of course, than the strong and healthy.

Finally, a long experience has taught me that the mental caliber and strength of mind is by no means to be left out of account. The patient who begins his treatment with impulsive and spasmodic energy is one to be easily discouraged, to fold his hands in an aimless way and give up the battle which he must make against the disease. With such a person, the prospects are unfavorable. On the other hand, with a quiet determination and strength of will sufficient for patient persistence in the treatment, and with the determination to overcome the obstacles by perseverance through weeks and months of care with little or no apparent gain,—for such a one the prospects are infinitely better.

In this connection, I am reminded of a case which came to me, at least twelve or fifteen years ago, of an unusually intelligent woman, prominent as an amateur musician, whose husband is one of the leading lawyers of his city. There were many points of discouragement in the case, and my prognosis was by no means favorable, but I insisted upon the necessity of such care as could be given at home, not for weeks but for months and even years. I have often listened, since then, to her admirable execution as a pianist, and noticed in that way, and by conversation with her, how well her hearing has been retained. Several years after, I spoke of the matter to her husband. "Doctor," he said, "I do

not think I have omitted the use of that inflator more than once or twice since those instructions were given." To his persistence and her patience that result can be credited. A less intelligent patient with the same difficulty would have been deaf in a comparatively short time.

In summing up all of the points of the prognosis to be given to the patient, it is well, I think, to acknowledge to ourselves how much still remains to be learned, and to acknowledge frankly to the patient how much must not be expected. As I have already indicated, after the disease has once obtained a good foothold, cure is practically out of the question. The sooner this is said directly and promptly, the better it is for the comfort of the patient and the credit of the practitioner. Of course, it is a shock, often a severe one, especially so when the comparative youth of the patient, or special circumstances or conditions, make the loss of hearing an unusually great deprivation. But in the present state of science we are practically unable to effect anything like perfect cure in the cases far advanced ; great improvement is also rare, and this question being the uppermost in the patient's mind, should be answered immediately, directly and explicitly.

The prospects of moderate improvement, however, can be stated more encouragingly. In many cases the circumstances may be such as to warrant considerable expectation in that respect, but I find that the oldest practitioners, and those with the largest experience, are also those the least apt to commit themselves upon this point. They simply say, all that we know what to do, shall be done ; but the condition of the ear and the symptoms must be unusually promising to enable one to hold out hopes of very great improvement after such a chronic disease of the middle ear has become well established and is advancing.

But if the disease cannot be cured, if it cannot even be improved, the patient asks finally whether it can be arrested. It is in this that the great value of the treatment lies. I know that various opinions exist as to what may be expected even in this phase of the matter. I have myself had cases, and also seen others in the care of those whose experience is quite as great as mine, go steadily from bad to worse in spite of everything that could be done. The advances in otology have been sufficient to enable it to be said without the least fear of contradiction, that we do know how to arrest the progress of such an inflammation of the middle ear in the great majority of cases, and for the remainder,

where progress from bad to worse still goes on, that progress is often unquestionably made much slower by proper treatment.

It is unnecessary here to array a long list of figures in support of this proposition, as could easily be done. I think no one fails to notice the great difference in this respect in the ultimate results between patients seen at a private office and at a public institution. In my own practice, the poorest patient treated at the infirmary has his case recorded with as much exactness as any one of those at my office. When a private patient is told what to do in order to hold in check the progress of this middle ear inflammation, he usually goes home to consider the matter, and returns after a while for such care as is necessary, or for such directions as he is ready to follow out at home, either alone or under the supervision of his family physician. And usually he carries out these directions with a certain degree of thoroughness. On the other hand, the infirmary patient has, as a rule, only one question to ask. He says, first of all, Can you cure me ? and if his case is one of these now under consideration, and is far advanced, the answer is briefly and promptly, No. He is always disappointed—usually disgusted. He says he has no time to spare from his work in an attempt to ward off what may not come. He is ready to " risk it," as he says, and proceeds to do so. But that patient is apt to return. It may be in six months, or a year, or six years, but whenever he does, the condition of the ears then can be compared with the record made at the time of his first visit. There is almost invariable loss, and the amount lost is certainly greater by far than with those who struggle to retain what hearing they have. Of course, one or two dozen cases of either kind prove nothing, but when it is possible to put together over seven hundred of the one kind, and offset those with just as many taken just in the same way, of the other kind, we do find, beyond a shadow of doubt, and with a certainty which is far removed from the errors of small statistical tables, that the average of those who have been systematically treated, or who have themselves followed out such a course, is infinitely better than the average of the careless and negligent, who are thus ready to " take the risk."

We come now to consider the best means of treating a typical case of chronic proliferous inflammation of the middle ear. As the difficulty often begins in the Eustachian tube, and with an inflammation of the pharynx, it is convenient in considering this question to commence with that.

The first and most important factor in this connection is cleanliness. This cleanliness may be that which is obtained by simple washing of the mucous membrane and the lower portion of the Eustachian tube, or it may be the chemical cleanliness obtained by antiseptics. For the first, one of the simplest and most efficacious methods is to inhale water through the nostrils. Pure water is apt to produce a stinging of the mucous membrane of the nostril, but if the specific gravity is changed by adding to a glassful of water a teaspoonful of salt, it will be possible then to inhale the solution in such a way as to wash out the upper and posterior nares, and thus partially to cleanse the lower portion of the Eustachian tube. Such an attempt is, however, to a certain extent, rather unsatisfactory, for the reason that the water which passes into the nostril simply runs down over the Eustachian tube, very much as the water from a roof runs over the eaves, not reaching up underneath them. In order to obviate this difficulty, it is well to syringe out the upper pharynx by means of a posterior nasal syringe, or so-called catarrhal syringe, using a solution of bicarbonate of soda or other weak alkaline mixture. Most of the syringes have a bulbous extremity which is perforated, and through which the water distributes itself over the whole membrane. This is not as efficient or satisfactory as is a single stream, and, for that reason, I am accustomed to have my patients buy the ordinary syringe, and then, cutting off the bulbous extremity and smoothing it well, warm the end and give the tip a curve almost at right angles. This end can then be introduced without difficulty under one side of the palate and, by turning the opening a little outwards, the stream can be forced not only against the lower opening of the Eustachian tube, but practically up into it. By varying this solution we can obtain not only the cleanliness which washes away all the existing secretion, but also the chemical cleanliness which, as far as may be possible under such circumstances, disinfects the secretion already there.

The value of the nasal douche in treating disease of the middle ear is a disputed question. Roosa and one or two others are strongly opposed to its use in any form, insisting that injury has been caused by it and that the results at best are unsatisfactory, while, on the other hand, Burnett and some of the most excellent German authorities contend that if used cautiously and with little or no force, it is possible in this manner to wash out the posterior nares easily and thoroughly. In general, therefore, we may conclude

that it is to be used with some caution and only under the direction of a physician.

After having once thoroughly cleansed the lower portion of the Eustachian tube and the membrane in that vicinity of the accumulated mucus and pus which may be adherent to the membrane, it is then in a condition to receive with advantage any astringent or weak caustic applications that may be made to it. One of the most reliable agents for this purpose is a solution of nitrate of silver, of one, two or even eight per cent. For twenty years I have watched with interest the fate of other remedies which have been brought forward to take the place of nitrate of silver, have seen them come into fashion and disappear, leaving that as the substance to which we must pin our faith in the treatment of the mucous membrane in this class of cases. It requires, however, no small amount of dexterity to make the application properly. On that account it is often neglected. Sponge probangs are of little or no use in this respect, although they are often recommended and sometimes employed. A camel's hair brush may be bent at a proper angle and attached to a good handle—as a penholder—and then, if the tongue is forcibly depressed, the brush can be first touched to the posterior wall of the pharynx, with the bristles bent downwards, and then, when the patient "gags," the bristles are quickly turned upward and the brush pushed upward and outward, while the handle is forcibly depressed against the opposite angle of the mouth.

Under this heading, also, it is well to mention the various applications, many of undoubted merit, which are frequently used in the form of sprays. Just at present menthol spray is the favorite, five to ten grains to the ounce of alboline making a pleasant stimulant and one which, in many cases, is of undoubted benefit. I think, however, that too great stress is laid upon the advantage of these, where the time and energy of the patient could be better expended in caring more directly for the cleanliness of the tube, or making astringent applications to it, or even to its dilatation, as will be mentioned presently, by means of the Eustachian inflator.

Having succeeded in cleansing the pharynx and the lower opening of the tube, and having used such stimulating or astringent applications as are necessary, the next step is to open—"inflate"—the tube, which is almost invariably partly or entirely closed. One of the oldest and simplest methods of accomplishing this is the Valsalva's inflation. This consists, as is well known, in filling the

lungs well with air, then holding the nostrils closed and closing the mouth also; an expiration drives the air upwards, which, being unable to escape through the nose or mouth, passes into the Eustachian tube. This inflation of the ears has been made by nearly every person when using the handkerchief, when by chance the nostrils and mouth have been closed at the same instant. The air was pressed upwards from the lungs, and the individual has felt a peculiar clicking in one or both ears. The object of the Valsalva's inflation is only to accomplish this. Simple as the procedure appears, it is not always done on the first trial, but with a little tact and patience one easily succeeds, and having been done once the patient repeats it with little or no effort. If the tube has closed firmly and it is impossible to press air through it, the experiment can be repeated four or five times a day, especially if the disease then exists in a more or less pronounced catarrhal form. The method is so simple, that the patient can be instructed to follow it with little or no hesitation or fear of doing harm.

Next to the Valsalva's inflation of the middle ear, the method advised by Politzer is the simplest. At his suggestion, as is well known, the air is forced from a gutta-percha bag into one nostril, through a plug which fits that nostril tightly, while the opposite nostril and mouth are closed. The patient is instructed to swallow at the same instant that pressure is made on the rubber bulb. In doing this the patient causes the soft palate to be thrown horizontally backwards when he swallows, and if at that instant the air is forced from the bag into the nostril, it must enter the Eustachian tube, as it cannot escape by the other nostril or downward into the mouth. With a little instruction most patients are able to carry out this portion of the treatment themselves, and, for my part, I am accustomed to have them, or some member of the family, take practically entire charge of this part of the detail. I know that other practitioners and writers consider that this involves risk. Many advise the use of the Politzer-bag only by the trained hand of a skilful practitioner, and I also find a few otherwise intelligent persons who are incapable of carrying out this part of their treatment. But I must confess I do not feel warranted in advising office patients to add to their expense and annoyance by many visits, when, by proper instruction, this part of the treatment can be followed, at least in part, so much more conveniently at home. For many also who find it out of the question to come for any treatment, especially those who live at a con-

siderable distance from the city, it is a great advantage to enable them to assist themselves by the intelligent use of the Politzer-bag.

There are other methods of inflating the Eustachian tube, such as have been recommended by Gruber and others, but it is unnecessary, in so short a paper, to dwell upon these modifications at any length. They all depend upon the principle of causing the soft palate to shut off the upper portion of the pharynx from the lower, while air is forced into the nostril, and thence into the Eustachian tube and middle ear. Nor is it necessary, in this connection, even to mention those procedures by which the air from the middle ear is drawn out, the object of this paper being to present the salient points of treatment only of the disease under consideration.

By far the most efficacious method of treating this, and, I may add, all allied diseases of the middle ear, is by means of the Eustachian catheter. Since it was first shown how that could be passed through the nostril into the tube, and what favorable effects could be obtained by this simple instrument, it has been held in the highest esteem by those whose experience is largest. It must be admitted that the introduction of the Eustachian catheter requires some experience and care. I have noticed, when instructing students, that very few are able at first to introduce the point of the catheter into the Eustachian tube, no matter how explicit are the directions given to them or how carefully they have studied the subject in text-books. Moreover, it is undeniably the fact that unfortunate results have occurred from its careless use. In some well-authenticated cases the end of the catheter has been pushed into the cellular tissue of the pharynx, and the surgeon has inflated the whole areolar tissue in that vicinity instead of the tube, producing pain, annoyance and, in one or two cases, more serious results. But I feel justified in saying that, with a little experience, it is one of the safest manipulations in surgery. When this catheter is properly passed through the nostril into the Eustachian tube, the simple inflation by air alone is one of the most efficacious means of dilating the closed tube. In the class of cases under consideration, it is necessary to repeat this introduction of the catheter day after day, and sometimes week after week, though in a short time a thorough inflation in this way will be sufficient if made every three or four days or, perhaps, once in a few weeks. The apparent results are slow, but are those upon

which we can rely with more confidence than upon any other method of treatment.

In passing, I may mention that in the acute form of aural catarrh there is nothing which compares with the Eustachian catheter in the satisfactory results which it gives. I think nearly every one can corroborate what Roosa says of the delight occasionally exhibited by patients when, after having been practically shut off from the world by their deafness, air is pushed through the catheter into the tube. Suddenly the face brightens; they exclaim: "Doctor, I am well. I hear again." Unfortunately this result is never found after the disease has advanced to a chronic stage, or passed into that now under consideration, but with persistent effort, for a considerable time, we find that this inflation yields better results than any other method.

The Eustachian catheter may also be used for the introduction of steam or medicated vapors into the tube, and many of these are unquestionably of some benefit, especially in the class of cases which are more or less of a pronounced catarrhal form. To these it is worth while, in most instances, to give a fair trial. On the other hand, I cannot agree with those who go so far as to advocate or prescribe introduction of bougies, through such a catheter, into the Eustachian tube or the middle ear, or any of the forcible efforts to dilate the tube. They are of questionable benefit, and not without some danger; and above all, we must be careful that in attempting to improve, no risk is taken of making the patient worse.

Finally, it is natural to ask ourselves if something cannot be accomplished, with old and desperate cases, by operation or by other methods more active than the simple means to which I have referred. This is a field which has been worked earnestly and conscientiously for a long while, and it must be confessed that until recently the results have been by no means encouraging. The operation of myringotomy unquestionably does very frequently lessen the annoying roaring in the ears, and, like others, I have passed through the stage when, encouraged by these favorable clinical reports, I have several times divided freely the membrane in certain cases of this class, but usually it healed promptly and the noises returned. Nor have I obtained much better results in five cases in which the opening was burned through with chromic acid, or with the galvano-cautery—a procedure requiring considerable care, of course. It is undoubtedly the

fact, though, that if we could make a smooth, clean opening in the drum-head, and keep that opening from healing, it would be possible to medicate the middle ear more thoroughly and intelligently. For this so eminent an authority as Burnett, with others, still advocate the introduction of an eyelet through an incision made in the drum-head, in order that the aperture may be retained, but it is a procedure difficult to carry out, and the results thus far have not been satisfactory, plausible and attractive as it may seem in theory.

It has long been known that where a considerable opening existed in the drum of the ear, not only did the person hear perfectly well for practical purposes, but it was noticed that in many cases where suppuration occurred, and such an opening did remain in one ear, the amount of hearing was greater than that remaining in the other ear, where practically the same process had gone on, except as regards the opening. This surgical procedure of nature had long ago taught aural surgeons that such an opening is not only desirable, but a necessity to hearing in certain cases, and it is not too much to expect that they will soon be able to maintain such an opening in the membrane as to treat the middle ear with astringents and other proper solutions as readily as such applications are made to the inner surfaces of the eyelids.

Another procedure which gives promise of most satisfactory results is the so-called mobilization of the bones—especially the stapes. An article like this can make only the merest reference to this step in advance. In another place I hope to discuss this method of treatment more in detail. The fact is evident that immobility of the bones of the ear is a very important factor in the production of imperfect hearing, and the problem before us is very similar to that which confronts the general surgeon in the case of a stiff-jointed knee or elbow. In that case, he institutes forcible motion and the bones move upon each other with more or less freedom afterwards. In the ear the problem is to move these adherent bones one upon the other, and especially to lessen the adhesions which in most instances the stapes has had formed about it. The brilliant results obtained in some cases and the many instances of decided improvement in others, give us strong reason to hope that this operation is one destined to bring relief to many in the future. Even a small experience with it justifies this conclusion. As for the entire removal of the stapes, as advocated by Jack, this operation, it must be admitted, is still

to be held as under trial, and considered as applicable to only a small class of cases. In general, I think nearly every practitioner of experience will agree with me that when he compares his results during the last four or five years with those in the earlier years of his practice, he sees that the advances made in operations on the middle ear have done much to warrant encouragement in a class of cases which before we saw go from bad to worse, while we confessed with shame our ignorance and inability to give the relief so much desired.

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## SOME AFFECTIONS OF THE EYE ASSOCIATED WITH AND DEPENDENT UPON THE SCROFULOUS DIATHESIS.[1]

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The theme as here stated involves, according to present pathological conclusions, an erroneous assumption. It presupposes the existence of a condition of the human system heretofore defined as scrofula, whereas scrofula is known no more in the newer pathology. It has figured most prominently in the past; but its foundation has been narrowing more and more, till within the last few years it has been removed entirely. Those lymphatic enlargements and other conditions which were formerly regarded as scrofula are now known to be forms of tuberculosis. Today scrofula is tuberculosis. And without scrofula there can be no "scrofulous diathesis." But in losing a name we do not lose a disease or its predisposing conditions. The "thing" is still with us, but has only been newly labeled.

There may be some objection to the word "diathesis." Indeed, there are some who deny such a condition. Perhaps "vulnerability" or "tissue-vulnerability" is a term more in harmony with our present knowledge. But I like the word "diathesis," signifying to me, as it does, a condition, either congenital or acquired, in which there is found a weakened vital or cell-resistance to morbific agents, and, therefore, in a sense, a predisposition to some particu-

1. Read before the Buffalo Academy of Medicine, February, 1894, and the New York State Medical Association, Fourth District Branch, at its meeting held in Buffalo, May 8, 1894.

lar constitutional or local disease. It seems to me very expressive to speak of the "gouty" diathesis, "scorbutic" diathesis, "hemorrhagic" diathesis, and the like. For the present purpose, therefore, I will retain the old name, but with its modified signification.

The so-called scrofulous or strumous diathesis is peculiar, and is, generally speaking, easily recognized. It exhibits a proneness to inflammations of the skin and mucous membranes, especially inflammations of a chronic nature, and a susceptibility to tubercular infections leading to glandular enlargements, bone and joint disease, "cold abscesses," pulmonary phthisis, and similar affections. This diathesis might with propriety be called tuberculous, as it offers most fertile soil for the propagation of the tubercle bacillus.

It is a condition both inherited and acquired. It is seen in children of tuberculous parents, or of ill-nourished, over-worked or greatly debilitated parents. It may be acquired from insufficient or improper food, impure air, insufficient light, uncleanliness and unhealthy surroundings. It is peculiarly a condition of young life, and is found alike in both sexes. It may be seen, generally speaking, in two types of individuals, one of which possesses the so-called "sanguine temperament," the other the "phlegmatic" (Treves on Scrofula). The one type is also said to be erethistic, the other torpid (Keen's American Text-book of Surgery). In 1881, Dr. Mahomed and Mr. Galton exhibited, at the museum of the International Medical Congress held in London, a series of "composite" photographs which admirably illustrated the general physiognomy of these two types as found in phthisical patients. In the first, "the face is oval, the lower jaw small, the features delicate and regular, the lips thin, the eyes are bright and covered with long eyelashes." In the second type, "the face is broad, the lower jaw large, the smaller bones often prominent, the features coarse and irregular. The nose is generally thick, the lips tumid, the lobes of the ears large and the neck unshapely. Individuals of the first type "are tall, slight and graceful, with well-formed limbs, hands and feet, a fine clear skin, usually a fair complexion, and the hair is often remarkably fine and silken." The disposition is sprightly and excitable. Those of the second type are, as a rule, short and burly, with coarse limbs, large hands and feet. The skin is coarse, harsh and thick. The amount of subcutaneous cellular tissue is considerable. . . . Persons of this class appear flabby and heavy-looking; they are apathetic, have little muscular power and are soon tired." (Treves on Scrofula.)

Sir Richard Barwell (Heath's Dictionary of Surgery, Vol. II., page 297,) also recognizes two types of this diathesis, the one corresponding, he says—

To fineness and paucity, the other to coarseness and abundance of connective tissue. The former is marked by refinement and definition of the features. The curves of the lips, the nasal, aural and tarsal cartilages are finely modeled. The conjunctiva and sclerotic are so thin that the pigment of the choroid, partially seen through them imparts a bluish or pearl-grey color to the white of the eye; the skin clear and pure of tint, with cool-toned, ash-grey shadows, is so translucent that the bluish wavy course of subjacent veins is plainly marked, as on the upper eyelid, the temple, the angle of the jaw, etc.; the luscious redness of the lips testifies to the same condition, the eyelashes are abundant and a fine down, often rather long, extends from the margin of the scalp-hair some way down the forehead, the temples and nape. The whole aspect is of refined but fragile beauty.

The other type is coarse and ugly. The head large and lumpy, bigger before than behind, is flanked by large, red, puffy ears; the jaws are prominent and lips thick, ill-defined, and often cracked, sway clumsily apart. The nose is lumpish, the origin of the alæ ill-defined, the eyelids thick and clumsy, often, when not inflamed, bordered with red, and are frequently lined with dried Meibomian secretion clinging to the roots of the sparse, irregular lashes. The dull, unclean-looking skin is marked by large orifices of sebaceous glands. The figure is unusually ungainly, the joints and extremities large, the belly prominent; the hair coarse, either of a dull, sandy color or lusterless black.

This somewhat rhetorical description applies to the two extreme types. Between these there are various mixtures and combinations. Whatever description, however, may be given to this condition, one thing is certain: the vital resistance of tissues is weakened, especially that of the skin and mucous membranes, and the lymphatic circulation is sluggish. Thus morbific agents find lodgement, and with insufficient antagonism become operative, producing chronic inflammations of the skin and mucous membranes, especially of those mucous membranes most exposed to the air—lupus; eczema; tuberculosis of the glands of the neck, mesentery, joints, bones and lungs, and other similar diseases. Such subjects are particularly prone to naso-pharyngeal, laryngeal and bronchial catarrhs, to enlarged tonsils, adenoid vegetations, hypertrophies over the turbinated bones and to inflammations of the lachrymal passages and conjunctiva.

That this diathesis is an important factor in disease not to be lost sight of by the physician is further proved, not only by the prevalence, but by the fatality, of those diseases which are engrafted upon it. Not that every person who has catarrh of the nose or throat, or inflammatory affections of the eyes, or tuberculosis in some of its manifold forms was originally "diathetic," as here described, but that very many such were.

The affections of the eye which are liable to develop upon this tissue-state or diathesis are eczema of the lids, inflammation of the margin of the lids, some forms of inflammation of the conjunctiva and cornea, inflammation of the lachrymal sac and of the iris and choroid, lupus of the lids and conjunctiva, and tubercular disease of nearly every structure of the eyeball and its appendages. In this discussion but little detailed consideration need be given to lupus and other tuberculous affections, as they are rare. The inflammatory affections are most frequent and will engage our attention at this time.

It is generally accepted today that all inflammations are due to some chemical or toxic substance which is inimical to cell- or tissue-integrity. Such substances may be derived from various sources, both within the body and without,—from the vital processes of the body itself, from microbic or vegetable life, from other living bodies or from inanimate nature. Indeed, these products are so numerous, and obstacles to experiment and observation so great, that their extent has not been determined. It is certain, however, that no inflammation can arise without the presence of some specific irritant; and science has gone far enough to demonstrate that, in most cases, such irritant is the product of microörganisms. Senn (Principles of Surgery, page 67,) says: "True inflammation is always caused by the presence of one or more kinds of pathogenic microbes." I do not think this definition is altogether true. Leber (Trans. Oph. Soc. United Kingdom, Vol. XII.), who has most indefatigably studied the causes of inflammation by careful and extended experiment, has proved that certain *chemical* substances absolutely sterilized cause inflammation. He says:

Among the pus-producing chemical substances quicksilver stands in first rank. A single drop, rendered absolutely sterile by heat, antiseptically introduced into the anterior chamber of the eye of an animal, always gives rise to a circumscribed collection of pus in its immediate neighborhood, which, in the course of time, can even lead to purulent infiltration and softening of the inner layers of the cornea. This puru-

lent inflammation is distinguished from that produced by microörganisms by the entire absence of organisms, as can be shown by the usual methods of staining microscopical preparations, and by means of culture experiments made with the purulent exudation of the eye.

He cites copper as another of the commonest chemical substances which produces suppuration in the eye. Croton oil, cantharides, jequrity, arsenic, and many other substances cause inflammation independently of microörganisms. Experiment has also shown that inflammation may be produced by the *products* of microörganisms, the organisms themselves having never been present. Thus Leber (*Ibid*, page 10,) says that "a decoction of the purely cultivated microbes (staphylococcus aurens) in distilled water, in which the microörganisms have been completely killed by heat, still produces an intense purulent inflammation when injected into the anterior chamber (of the eye)." Inflammation, therefore, is not always caused by the presence of microbes, but by the toxines which they produce, as well, and also by chemical products from many other sources.

Whatever substances may cause inflammation, one fact is certain, and that is that the vast majority of inflammations owe their origin to microörganisms and the products which they engender. This being accepted, we must regard inflammations of the eye as essentially microbic in origin, even after traumatism. In some inflammations the special form of microörganism has been demonstrated, as in purulent conjunctivitis. In trachoma the particular microbe is still somewhat conjectural. In all other inflammations of the conjunctiva, and in those of the lachrymal sac, several pathogenic organisms have been found, but without settling definitely what one (or ones) is the specific cause. While, therefore, our present knowledge does not enable us to say just what organisms are the cause of a certain form of inflammation, it is sufficient to permit the general conclusion that microörganisms are the primary offenders, and that our pathology and therapeutics must be shaped to correspond, at least provisionally, till more positive evidence is obtained.

Given, then, a physical and vital condition susceptible to microbic invasion, and all inflammatory diseases of the eye must necessarily be more prevalent and more virulent than in a constitution of strong vital resistance. We may expect, therefore, to find trachoma, and other forms of granular conjunctivitis, in the former much more frequently than in the latter, and our expecta

tions are realized. Eczematous eruptions and inflammations of the lachrymal sac and of the margins of the lids are by far more frequent in the former. Inflammations of the cornea occur in the same class oftener than in any other, not to except the syphilitic. Phlyctenular inflammation of the conjunctiva and cornea is scarcely ever present in any but this diathetic class.

The eye and its appendages, in cases of this diathesis, are not alone in being subject to various inflammations. They are in many cases associated with affections of the nose and throat, not in any causal relation, but, coincidentally, phlyctenular disease of the eye, eczema of the lids and orifices of the nose and lip, inflammations of the nasal mucous membrane, adenoid vegetations and enlarged tonsils are often associated; but I do not believe, as Dunn (*New York Medical Journal*, September 19, 1891), Couéteau (*Annales d' Oculistique*, Vol. CVI., 1891, page 401,) and others do, that the phlyctenular disease is caused by the nasal, or naso-pharyngeal disease, or *vice versa*. The constitutional condition simply affords common ground for various bacterial invasions, and different diseases or similar diseases of different structures may consecutively or successively arise, the one not necessarily causing the other. Hence, in treatment the best success cannot be obtained by giving particular attention to any one expression of disease, but to each and every one present, together with such general measures as tend to strengthen tissue-resistance and favor regeneration.

Phlyctenular inflammation of the cornea and conjunctiva, so-called scrofulous ophthalmia, ophthalmia lymphatica, ophthalmia pustulosa, etc., is one of the most common of all diseases of the eyes, and produces more bad vision than any other. It may not cause total blindness as frequently as the purulent forms of conjunctivitis, especially the infantile, but it impairs the vision, even to a serious extent, in far greater numbers.

It is a disease primarily of the epithelial and subepithelial covering of the anterior portion of the globe, or, in other words, of the ocular conjunctiva and anterior layers of the cornea, having a special predilection for the cornea. It is characterized at first by small red elevations, from the size of a millet seed down to minute proportions, which are located at or near the margin of the cornea, sometimes without and sometimes within the margin, and even at the center of the cornea. Sometimes these appear vesicular and sometimes pustular. In a short time the epithelium over these

elevations, especially the larger ones, softens or ruptures, and there are then left distinct ulcers. Various conditions, both local and general, and the character of the microbic invasions, shape the future progress of the disease. If tissue-resistance is comparatively strong, and the local environment of the parts is made favorable, the nodule or ulcer heals without further extension. But if, on the other hand, the conditions are reversed, the ulcer may increase in size and depth, or may assume a serpiginous or creeping form; or, instead of becoming an open ulcer, the nodule may become softened without rupturing, and infiltrations of inflammatory products, even of pus, take place, especially in the cornea, to the extent of involving considerable surface. Sometimes the exudation, thus starting superficially in the cornea, extends to the deep layers as a diffused deep-lying infiltration, showing as an opacity of its deeper structure of a uniform grey or yellowish color, becoming fainter towards the edges. In very bad cases these infiltrations break down, forming corneal abscesses, and causing extensive loss of substance. Happily these severe cases, in which an ulcer may extend through the cornea and lead to perforation, or an infiltration may develop into corneal abscess or hypopion, are not common.

The nodules or ulcers may be single or multiple; and if there are more than one, they may be seen in a sort of chain around a portion or all of the margin of the cornea, or they may be separated by considerable space. There are seldom more than three or four ulcers or infiltration-spots when their size is more than that of a mustard seed. In the chain form the elevations are generally minute and do not rupture. After a short time blood-vessels always extend to the phlyctenule, even in the cornea.

The results after healing depend greatly upon the location, extent and depth of the disease-process. If the location has been on the ocular conjunctiva, any cicatricial result is of no consequence. If phlyctenules have appeared superficially on the periphery of the cornea, any loss of transparency, which they may have caused, will not usually affect the vision. But a cicatricial contraction of the outer part of the cornea may so alter the curvature of the central part, as to impair the vision to a large extent. If the central part of the cornea has become the seat of the disease, the vision becomes affected in direct proportion to the extent and depth of tissue involved. A mere destruction of the corneal epithelium causes little or no opacity. But the disease

generally reaches deeper than this, and then opacity necessarily and proportionately follows. Of course, the impairment of vision depends more upon the size of the opacity and its extending over the line of vision than upon its density, as a comparatively thin, central opacity reduces vision very much. Fortunately the phlyctenules seldom develop at the exact center of the cornea, although they often encroach upon it. Perforating ulcers and burrowing abscesses of the cornea, when they do occur, are very serious.

Phlyctenular kerato-conjunctivitis is emphatically a disease of childhood and adolescence, and in most cases the general diathesis above referred to is marked. Over-crowding, unhealthful habitations, malnutrition from insufficient or improper diet, etc., increase the susceptibility of individuals to it. I look upon this disease as an eczema of the ball, akin to eczema of the skin. I believe it is dependent upon microörganisms for its origin, although the specific form has not been positively established. The peculiarity of its beginnings and the course which it pursues are exactly what might be expected from such a cause.

The symptoms consist in redness of the eye; development of a fasicular band of blood-vessels running from the sclera toward the elevated, ulcerated or infiltrated spots on the cornea or conjunctiva; much lachrymation, and generally intense photophobia and involuntary spasm of the orbicular muscle of the lids, which are worse when the cornea is involved. This photophobia is accompanied by a peculiar and almost pathognomonic physiognomy of the disease, that of burying the face in the arms or a pillow or cushion.

Exposure of the eye to light frequently causes sneezing. There are sometimes itching and burning of the lids and eyes, but very little pain. Both eyes are quite likely to be affected at the same time, but to this there are many exceptions.

The treatment of this disease resolves itself into improving that general condition which makes its existence possible, and applying such local measures as will destroy its infectious character.

The first indication is medicinally subserved best by giving small doses of arsenic. Tonics, alteratives and "tissue-builders" are generally necessary. Hygienically, regulation of the diet is of paramount importance. It should be plain and nutritious, and regularly served. *All sweets should be positively prohibited.* Other agencies, such as pure air, healthful and cleanly abodes, etc., are not to be forgotten.

Locally some cases require very little, while others demand the greatest skill and closest attention of the practitioner. Instillations of a suturated solution of boracic acid or some other mild collyrium often suffice to thwart the action of the morbific cause. For many decades it has been known, empirically, that calomel dusted into the eyes acted quite effectually in abating this disease. It is now believed that it operates by being converted into bichloride of mercury, thus acting antiseptically. Yellow oxide of mercury ointment has a similar effect. These remedies should be applied daily during the active stages. In obstinate cases I have washed the whole conjunctival and corneal surface with 1 to 1,000 or 1 to 2,000 of bichloride, with most happy results. I have seen cases in children recover immediately after administering ether or chloroform for the purpose alone of facilitating the examination. Hot water, applied for fifteen to twenty minutes over the eyes once or twice a day, has seemed valuable. Instillations of weak solutions of atropia sometimes relieve as if by magic. I do not think, however, that strain or action of the ciliary muscle causes phlyctenules, but it may tend to aggravate the inflammation, and thus atropia becomes a valuable medicament in many cases.

These remedies and others which I might mention of the same class, act beneficially upon the whole conjunctival and corneal surfaces. But, in my opinion, the treatment should not always be restricted to such medication, but the phlyctenules themselves, in whatever stages they may be found, should be destroyed. My plan is to apply the actual cautery to the whole surface, which is elevated, or ulcerated. In this manner the "nidus" of the disease, together with its aggregation of microörganisms, if present, is destroyed, and a comparatively aseptic burn is produced in its stead, which readily heals. This practice has proved so beneficial, that I should feel that I had not done my duty in a severe case, at least, if I had not resorted to it. It is seldom necessary to cauterize a phlyctenular ulcer more than once, although an infiltration may be thus treated several times at intervals of two or three days. The previous treatment suggested is to be continued after the cauterization.

If the patient is old enough and tractable, the different applications can be made, when they are painful, under cocaine anesthesia. When not, chloroform or ether should be administered without hesitation, and I prefer the former, as it affects children kindly.

I will not enlarge upon the treatment of this disease. It should be regarded as an eczema and treated accordingly. I know of no way of preventing its occurrence and recurrence, except by improving the constitutional and environing conditions of children.

To place these upon a plane absolutely beyond the influence of morbific causes is not attainable in our present civilization. But they can be so improved as to make fewer victims, and to lessen society's burden of non-producing dependencies caused by impaired or lost vision.

212 Franklin Street.

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# Society Proceedings.

## LOUISVILLE SURGICAL SOCIETY.

*Stated Meeting, February, 1894.*

Dr. Ap. M. Vance, president, in the chair.

Dr. I. N. Bloom (Urethritis; Simple and Specific): I have recently had two or three cases which have furnished considerable food for reflection. They were all cases of urethritis. It is now a generally accepted fact, among those who are supposed to know, that urethritis is divided into three classes: (1) Traumatic urethritis; (2) urethritis simplex; (3) urethritis specific.

A man having gonorrhea is subjected to specific urethritis, which is brought about by the specific germ, the gonococcus of Neisser, carried from one subject to another, and by its development produces the disease. While there have been some differences of opinion in regard to the causation of gonorrhea, the above is the most generally accepted theory. I am not prepared to dispute this, but two cases I wish to report have, at least, been food for reflection for me for some time, and I propose to give the cases first, then draw my deductions therefrom, or leave the members of the society to draw theirs.

The first case came under my observation about a year and a half ago. A man who had been married about ten years contracted gonorrhea, at least gonorrhea was the diagnosis given by his physician. The following are the particulars: The man had been on a spree, and had indulged in one sexual intercourse away from his

wife. Two or three days after this, having no symptoms of any kind, he had connection with his wife. About a day following this coitus he noticed a slight discharge from his penis, and consulted me. The flow, when I saw it, was mucoid, scarcely muco-purulent, in character, about the color and consistency of glycerine. Urination on the part of the patient was painless, and there was little or no inflammation around the meatus. At the end of four or five days of ordinary treatment there was no discharge at all from the penis or in the urine; in the meantime, however, for one or two days, the flow became more purulent in character, but principally mucoid, and remained that way until probably the end of five days, when it ceased altogether. He had not practised coitus with his wife from the time he first consulted me, and she subsequently developed undoubted gonorrhea, which lasted four or five weeks, severe in character, with urethritis, vaginitis and pelvic peritonitis, characterized by the usual symptoms and usual amount of severe pain. Previous to the time this man first consulted me he had no signs of gonorrhea for ten years.

The other case (rather there are two of them which are practically alike, one of which I followed very closely, having had a microscopical examination of the discharge made by Dr. Vissman,) occurred in a young man, twenty-six years of age, who came to me about a year and a half ago for a syphilitic affection which was then about two years old. About the same time he told me of a gonorrheal discharge he had, which came on at intervals; sometimes for a week or two it would remain quiet, then become varied in form from a thin, gleety, mucous discharge to (at times) a decidedly purulent flow. In the course of treatment for syphilis I saw the patient quite frequently, and he paid little or no attention to this discharge; in fact, the urethral discharge was only mentioned occasionally, and received no direct or thorough treatment. The patient seemed disinclined to it, would not use injections nor internal medicines faithfully, and would not limit his desires or the gratification of them.

In June the man fell in love and began to think seriously of marriage. In the meantime three years had elapsed since the development of syphilitic manifestations, to which he had attended fairly faithfully as a man can do by getting a month's supply of medicine and taking it regularly. His gonorrhea, from his failure to give the treatment of it proper attention, had become chronic. About the last of July, when he consulted me as to the possibility

of marriage, I told him that so far as syphilis was concerned there was no reason why he should not marry, but so long as there was the slightest discharge from the urethra, this feature would debar his union. Proper treatment was then instituted and carried out rather more earnestly by the patient. In August there was some improvement, and he was still more anxious to get married. I suggested to him the advisability of having a microscopical examination made, and he was accordingly sent to Dr. Vissman, with instructions to take a sample of urethral discharge when he had not cleaned out the urethra for several hours, so that the discharge could be examined. This was done, and at my request Dr. Vissman made a very careful examination, and made the following report, that while there was possibly very little danger, a few gonococci were still present, and he did not think immediate marriage was advisable, as he did not consider it safe to take the risk. We then worked even more vigorously in the matter of treatment, and by the middle of September for a week or ten days there had been no discharge. The treatment was continued, and at the end of September there was still no flow. By the first of October almost a month had elapsed without the slightest sign of gonorrhea; the mucous shreds had disappeared from his urine as thoroughly as they ever disappear in any one who has had gonorrhea within five years. By a most careful examination the faintest traces of mucous shreds could be seen in the urine, but there was not the slightest evidence of discharge from the urethra, and there was nothing to examine under the microscope. I then gave it as my opinion that there was very little danger from his marrying; he was apparently in the best of health; he had been examined repeatedly for stricture, which so often follows gonorrhea, but nothing of this kind could be found, and there was no trace of the previous chronic gonorrheal infection.

The man married early in October, and, of course, pursued the usual course in those cases. November passed, and late in December he came to me, stating that his wife had been complaining, and told me the nature of her symptoms. He said that she had only been complaining for a few days. He very wisely thought an examination should be made at once, and for this purpose his wife was brought to my office. Upon examination I found that she was suffering from undoubted gonorrhea; she had urethritis, vaginitis, and considerable pain in one side, with slight pelvic peritonitis. She has been under treatment since that time; she still has vagin-

itis, but no urethritis, and the urine has become normal. There are still some evidences of pelvic trouble in the left side.

I cite these two cases for the following purposes: In the first place we have been taught that specific urethritis runs a certain course. It has probably not been the experience of any one here to take a case of undoubted specific (so-called) gonorrhea, such as was present in the first case, and cure it in four or five days. I remember once of having a case where I thought I was producing a remarkable result in curing a gonorrheal discharge in eleven days with resorcin. With that exception I can remember no case of specific gonorrhea that was cured inside of three to four weeks. Now, that being the case, the question is, Did this man (unfortunately we did not have the secretions examined) have a specific gonorrhea? If so, then it was cured in four or five days by remedies that have not been certain to effect a cure heretofore inside of twenty-eight days. If he did not have specific gonorrhea, how could he have given his wife gonorrhea? It is fair to assume that this man has had intercourse with his wife quite a number of times since she has gotten better, and he has not developed any form of gonorrhea.

In the second case the man had no discharge whatsoever from the urethra for several months previous to marriage, and has had none up to this time, and yet his wife developed an undoubted case of gonorrhea so far as all symptoms are concerned, because there is no form of simple vaginitis which will result in urethritis and pelvic peritonitis. I never had this woman's secretions microscopically examined.

### DISCUSSION.

Dr. GRANT: I do not speak of these cases from a specialist's standpoint, but it occurs to me that both cases Dr. Bloom describes may be easily explained. In the first case, I believe that his patient most certainly had simple urethritis, and it is entirely possible for simple urethritis to have produced this irritation in the woman. I am sure that I have seen a number of cases of urethritis which were simple in the male, certainly cases in which there were no gonococci present, perhaps in many instances there was certain irritation, the result of old strictures producing long-standing trouble, that infected the wife afterward; and while I believe, as Dr. Bloom states, that it is not possible to bring about a cure of gonorrhea in four or five days, yet I do think it possible for simple urethritis to get well in that length of time, to all appearances, and yet afterward cause vaginitis, urethritis, etc., in the female.

Referring to his second case, a great many cases of gonorrhea are supposed to be cured, while there still remains in the glands, far back in the prostatic portion of the urethra, a quantity of the gonococci, which are not in active, irritative and aggressive condition, yet they are present, and may become dislodged and pass out with the urine or with the semen in sexual intercourse, and, in the latter case, they are injected into the female vagina, and may be productive of serious trouble. I think there is almost no question about this being the course of infection in the second case reported by Dr. Bloom, and I can see no other rational explanation of the first one. I am sure Dr. Bloom will say, without hesitation, that a very large number of cases of gonorrhea are apparently cured, still there may be retained somewhere, either in the epithelial covering of the urethra or in some of the glands or pockets far back, germs able to cause gonorrhea for a very considerable length of time, even after all manifestations have apparently been cured, and this, too, without there being any particular irritation in the male, or, at least, any irritation that he is able to define as a result of the urethritis.

Dr. Cecil: We know it to be a fact that gonorrhea may exist for a long time in the genital passages of women, in the glands of Bartholini, in the cervix, in the posterior vaginal fornix, and in many places almost inaccessible, which generally are overlooked or neglected in any method of treatment that is adopted. The question as to how long gonorrhea may exist either in the male or female, and how long it may possibly be communicated, is one to which I have never been able to give any satisfactory answer.

I can hardly agree with Dr. Grant that simple vaginitis will show up in as virulent a form as indicated in the case reported by Dr. Bloom. We may have simple vaginitis occasionally, but I have never seen it involve the urethra to any extent. I have seldom seen it extend to the pelvic region and involve the tubes; in fact, I hardly think it probable that simple vaginitis will ever result in these complications. I am free to say that I cannot understand how the first case described by Dr. Bloom could have originated. The second case, especially in its relation to the time when it is advisable for persons to marry after having had gonorrhea, strikes me as being one of very great moment, because of the prevalence of gonorrhea among young men, and especially since we know the wonderful number of diseases in the female that result from so-called cured gonorrhea. I had a case in mind, at the time Dr. Bloom was speaking, of a gentleman whose wife had been suffering from some womb trouble, who had of necessity to live apart from his wife, and had indulged his fancy outside, contracting gonorrhea. He came to me for treatment, while his wife was going to another physician for treatment. I persisted with and urged upon him the necessity of

complete cure before he again went to stay with his wife, and thought that I had accomplished this, and he thought so too. Every symptom had disappeared, and he went so far as to make a crucial test by going outside again and trying it on somebody else, and utterly failed in his attempt to communicate the disease. Three or four weeks after all symptoms had subsided he communicated gonorrhea to his wife.

It is a question that it seems to me ought to be settled in some definite way, if possible, because of its importance. Of course, no man wants to communicate gonorrhea to his wife, whether she be newly married or otherwise, and especially since we know that so many pelvic diseases, which require extensive operative procedure to relieve, are due to gonorrhea, it seems to me the question ought to be discussed and settled. I am sorry that I have not something definite to offer, but it seems to me that Dr. Bloom, in the cases he reports, did follow out every possible precaution that even the most exacting of us could have asked, and yet his cases went wrong. The question will come up to all of us, When can a man marry, after he has had gonorrhea, with safety? When should he be allowed to marry? The question becomes one of the greatest gravity, and should receive our careful consideration.

Dr. Bloom: My object in citing these two cases was to get the different opinions on the subject. I am fully cognizant of the experiments and tests that have been made as to the cause of gonorrhea, and, as yet, I am not satisfied and not prepared to state that the germ of Neisser is not the specific germ of gonorrhea; on the other hand, I am also not prepared to state positively that it is the essential germ which produces gonorrhea.

As regards the first case, Dr. Cecil has answered Dr. Grant exactly as I should have done. I do not believe simple urethritis could possibly produce the symptoms which were seen by one of the physicians present, who was called in consultation when peritonitis developed.

In the second case, the man married early in October, and had intercourse with his wife during October, November and a part of December before she developed any symptoms of gonorrhea, and the strangest feature is, without a single symptom developing in himself. It is natural to suppose any latent urethritis that might exist would be aggravated by sexual congress the first few weeks of marriage, and be at once communicated; I believe that is the usual history of these cases. However, in this case, nothing developed in the wife until fully two months after marriage. Some writers claim that a man may be absolutely free from all symptoms for a year, and then communicate gonorrhea. Further, do not some authorities recommend marriage for the cure of so-called gleety discharges in the male, and have not cures resulted, in some cases, without any trouble developing subsequently in the female? Yet here is a case where exactly the opposite condition

exists ; there was absolutely no sign of urethral discharge for several weeks before marriage, all evidence of gonorrhea having disappeared, yet the wife became infected. We could all cite cases where a discharge was still present, the patient married, became well, and the wife was not infected. I do not believe that the gonococci can exist in any part of the urethra for a long time sufficiently active to give a specific gonorrhea to any one without causing trouble, and specific trouble at that, in the patient himself. Furthermore, if they did exist in the urethra, I believe evidences of their presence could be detected in the urine. If they existed and remained in the urethra, they could not be active and could not be made to be active, and in order to be conducted with the semen and not to flow from the urethra they would have to be present in some quantity, and serious inflammation would be likely to result therefrom.

In regard to the specificity of the bacillus of Neisser, I do not think it has been fully established, clinically at least.

Dr. GRANT : In the present history of diseases of women, am I not correct in saying that there are certain authorities who maintain that no woman ever marries a man who has had gonorrhea but suffers in some way from the effect of that gonorrhea ? There is abundant authority in every surgical journal of the land, and in nearly every surgical book, to support the statement I made, that gonorrhea is not by any means cured when the discharge ceases, and that in many instances the disease remains latent for a very considerable time. Therefore, if it be true, as maintained, that any woman who marries a man who has had gonorrhea invariably suffers from its effects, it would seem to me that if a man marries a woman within a period of two or three years after he has apparently recovered from an attack of gonorrhea, it is perfectly possible for the gonococci to produce such effects as Dr. Bloom has described.

The question as to when it is safe for a man to marry after having apparently recovered from an attack of gonorrhea is one of the greatest importance, and one which, in my opinion, is far from being satisfactorily settled.—*American Practitioner and News*, May 5, 1894.

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EFFECT OF MERCURY ON THE KIDNEYS.—Welander (*Hygiea*, lvi., 2, pp. 105, 148, 1894,) has had the opportunity of observing 97 cases of syphilis before treatment with mercury and during the administration of the drug. He found that its elimination was accompanied by a greater or less irritation of the kidneys, manifested by casts in the urine. These casts increase in proportion to the length of the treatment, gradually decrease after its cessation, and generally disappear within a month or six weeks. No injury to the kidneys, either temporary or permanent, was observed.—*Universal Medical Journal.*

# MEDICAL SOCIETY OF THE COUNTY OF ERIE.

## *Special Meeting.*

Reported by FRANKLIN C. GRAM, M. D., Secretary.

A SPECIAL meeting of the Medical Society of the County of Erie was held at the rooms of the Buffalo Academy of Medicine, on the evening of August 4, 1894, for the purpose of taking action on the death of Dr. Judson B. Andrews, superintendent of the Buffalo State Hospital, and an ex-president of the society. An unusually large number of the profession was in attendance.

After calling the meeting to order, the president, Dr. WM. H. GAIL, of East Aurora, spoke as follows :

It becomes my painful duty to announce the death of one of our most prominent members. Dr. Judson B. Andrews expired at 7.30 o'clock P. M., August 3, 1894, at his home, at the Buffalo State Hospital, after a lingering illness.

The story of his life is too full of important details to be told in this announcement. But few lives, closing at sixty years, have been more completely occupied with honorable, patriotic and useful professional work. His biography, as published in the daily press, leaves little to be added. To us, as a representative body of physicians, it possesses an unusual interest. As our president, in 1886, he received the highest compliment we can bestow, and his many years of service as superintendent of the State Hospital have made him familiar to us all. His fame is not confined to this city, but has extended to distant lands.

He was a striking example of physical and intellectual manhood ; but, more than this, he illustrated in his life the highest ideal of the citizen and the moralist. Among the names of those who have had membership in this society, many of them of world-wide renown, his must ever occupy a most honorable place.

We part from him with deep regret. We shall miss him professionally and socially. But, as the best bequest he could give us, he has trained up men to be his successors in the important specialty to which he consecrated his life. Our hearts throb heavily at the portals of his grave.

It remains for the society to take such action as may seem appropriate, and the chair will entertain suggestions or motions from the members, inviting them also, without special designation, to individually express their sentiments upon this sad occasion.

A committee, consisting of Dr. John Cronyn, Dr. Floyd S. Crego, Dr. W. W. Potter, Dr. F. W. Bartlett and Dr. Roswell Park, was appointed to draft a suitable memorial. The committee reported as follows:

## MEMORIAL.

JUDSON BOARDMAN ANDREWS, A. M., M. D.

Born April 25, 1834.

Died August 3, 1894.

Dr. Andrews passed his early life in New England, and graduated from Yale College in 1855. He then studied medicine, but before receiving his medical degree the civil war began, and he joined the Union Army, serving first as captain in the 77th New York Volunteers. Resigning this office, by reason of impaired health, in 1862, he completed his medical studies and graduated at the Yale Medical School in 1863. Soon afterward he was appointed assistant surgeon in the 2d Connecticut Heavy Artillery, in which he served until the close of the war. In 1867, he was appointed third assistant physician at the State Hospital in Utica, and four years later became first assistant physician to Dr. John P. Gray, serving in this capacity until the Buffalo State Hospital for the Insane was established. He came to Buffalo in 1880, and assumed the superintendency of the latter institution, serving as such until his death. In 1886, he was elected president of this society, serving with distinction. He was president of the New York State Medical Association in 1891, and of the Medico-Psychological Association in 1892.

Dr. Andrews was a man of sound learning, amiable character, sterling integrity and positive convictions. He was fitted by Nature for the work to which he gave the best years of his life, and he easily took rank among the foremost alienists of the world.

With great kindness of heart and manner, he yet governed the unfortunates under his special care with firmness, and often conducted doubtful cases to successful cure.

He was a natural organizer, and so became instrumental in inaugurating methods that resulted in great benefit to the insane and which led to the present improved system.

The medical profession has suffered a blow in his death not easily recovered from, while community is shocked thereby to an unusual degree.

This society desires to express its great appreciation of Dr. Andrews' services to humanity, and its deep sympathy with his surviving widow and daughter in their great affliction.

It, therefore, directs that a copy of this memorial signed by the president and attested by the secretary, be sent to Mrs. J. B. Andrews and published in the medical and newspaper press.

Signed, JOHN CRONYN,
F. W. BARTLETT,
WILLIAM WARREN POTTER,
ROSWELL PARK,
FLOYD S. CREGO,
*Committee.*

Dr. F. S. Crego, in speaking on the adoption of the memorial, alluded to his personal associations with Dr. Andrews. He referred with pleasure to the friendly instructions and advice which the deceased gave him, and how he was the friend of the young man. His kindness toward the patients entrusted to his care at the hospital was proverbial. There was hardly a patient in the large institution whose case he did not understand thoroughly, and who did not love him in return.

Dr. Lucien Howe said that it is customary to take cognizance of a break in the ranks of the profession, but the present was one of unusual importance, having lived and worked among us in so prominent a manner for so long a time. From whatever side we view his character, whether as a citizen, soldier, physician, or as an executive officer, it bears favorable criticism. He alluded to the time when he first met the deceased, and to his future associations with him. Dr. Andrews was quiet and unassuming in his executive position, but when the occasion required he would rouse up and be equal to any emergency.

Dr. Roswell Park spoke of his associations with Dr. Andrews, socially, professionally and in the faculty of the Buffalo Medical College. He alluded to his scientific contributions, and believed him a model for others ; also to the many unjust assaults and criticisms made upon him in his public position. It was unfortunate that such criticisms were ever made, although it is something that public officials are necessarily subjected to.

Dr. W. W. Potter said that as president of this society Dr. Andrews was a model presiding officer, as a specialist he was recognized as an authority, as a superintendent of an insane hospital he was without a superior. His home life, too, was a beautiful one. Take it all in all, we shall rarely be called upon to take cognizance, as a society, of so sad an event as the present.

Dr. Benjamin G. Long said he was a student at the Buffalo University when Dr. Andrews delivered his first course of lectures there, and he referred with pleasure to the deep interest which he took in the young men. He also had occasion for a long time to visit the hospital several times weekly, and he never heard any of the patients speak other than well of him.

Dr. Bartlett briefly alluded to his associations with the deceased; said it was largely due to the late Dr. White that we have the hospital here, and also to him that Dr. Andrews was selected as its superintendent.

Dr. Cronyn said he knew him since he came to Buffalo, and intimately for the past three years, owing to his position as a member of the board of management. His executive work was referred to, and it was his great work which sent Dr. Andrews to an untimely grave.

Dr. Crego offered to present a large photograph of Dr. Andrews to the society. This was accepted, and the memorial as presented was adopted.

Dr. Park said that Dr. Crego had a memorial, which, coming from a former assistant, would be appropriate to incorporate in the minutes. At his request it was read, and on motion spread upon the minutes. It is as follows:

In the death of Dr. Andrews we have sustained a great loss. His kindly disposition and admirable personal qualities have endeared him to all. His learning and devotion to his profession placed him at the head of the specialists in mental diseases at home; and abroad he was accorded a high place in this branch of medicine. We are all under obligation to him for his many contributions to scientific medicine, which we frequently had the opportunity of hearing from his own lips, and the profession at large has recognized their true worth. He was often quoted as an authority on the action of drugs and insanity.

Not less brilliant than his medical career was his army record. When a boy, he was chosen as captain of a volunteer company, went to the front and served for two years, until, on account of failing health, he was obliged to return; but, imbued with patriotism and love for his country, which his ancestors had helped to found, he again went to the front, this time as an assistant surgeon, and remained until the cause of his country had triumphed. The institution of which he was the head was recognized as among the foremost in the country, and his devotion to suffering humanity won for him the love of the patients under his care. The trying labors of his position undoubtedly contributed to

his illness, and it can be truthfully said of him that he sacrificed his life to them. He has gone to realize the hope, which as a true Christian he has sustained, of a blissful immortality, mourned by the profession, by the community at large, and by his family, for a more ideal and loving husband and father could not be.

The society then adjourned.

# Progress in Medical Science.

## OPHTHALMOLOGY.

By ALVIN A. HUBBELL, M. D.

### THE ABUSE OF COLLYRIA.

De Wecker, (*La Médecine Moderne*, May 9, 1894; *Therapeutic Gazette*, July, 1894,) after referring to the necessity of having sterile collyria, is of the opinion that it is unnecessary after every case of extraction to instil atropine on the second or third day and to continue these instillations until recovery is complete, believing that the most perfect cures are observed when, after an extraction properly performed, there is no instillation of collyria.

The use of impure collyria in the treatment of ulcers of the cornea is productive of serious results, and he thinks that ulcers should be treated (1) by careful disinfection of the eyelids and particularly of the palpebral edges; (2) by curetting the ulcers and spraying them, so as to remove all infected parts; (3) by injections of several drops of a solution of sublimate (1 to 2,000) under the conjunctiva in the region of the diseased part; and (4) by the rigorous application of a compressing bandage without the use of collyria.

In the discussion which followed, Armaignac agreed with De Wecker on the abuse of collyria, and especially on the manner of using them when given to poor patients who had no means of keeping them clean. Dufour believes that De Wecker goes too far in attempting to banish collyria, especially atropine. Kalt believed that pilocarpine and eserine should not be used in ulcers of the cornea, but, where there is iritis, atropine should be used. He thinks that the septic condition of the collyria is unimportant, for these are not, in general, more septic than the liquids of the cul-de-sac. The conclusions of Kalt in regard to the uselessness of attempting to obtain aseptic collyria were vigorously disputed by

Darier and Chibret. In the discussion the abuse of cocaine and its deleterious effect on the cornea received prominent attention.

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### TRIKRESOL AS AN ANTISEPTIC FOR COLLYRIA.

E. A. DE SCHWEINITZ, Ph. D., Washington, D. C., (*Therapeutic Gazette*, July, 1894,) says the frequent contamination of collyria with harmful bacteria has been pointed out by Francke and others, and again emphasized by recent papers which he has prepared in conjunction with Dr. G. de Schweinitz. Up to the present time, the chemical sterilization of such solutions has been rather unsatisfactory, owing to the strength of the carbolic acid, corrosive sublimate or mercury cyanide, which must be used to insure disinfection ; hence, it occurred to him that trikresol might be useful.

Trikresol is a mixture of the ortho-, meta- and para-methyl phenols, or ortho-, meta- and para-kresols, and contains the hydroxyl group, which seems to be a characteristic of antiseptics and germicides. Its irritating action is restrained, although its disinfecting properties are not interfered with, by the presence of the methyl group in the molecule.

A 1 to 1,000 solution might be used for the preparation of the collyria. The three drugs most liable to contamination in a short time are cocaine, atropine and eserine, and, of these, solutions were made in the following strengths : hydrochlorate of cocaine, four per cent. ; eserine, one grain to the ounce ; atropine, four grains to the ounce. Trikresol water was used as the solvent. These solutions were placed in ounce glass-stoppered bottles, no particular care being used to protect them from dust, and they were allowed to stand for a week in a loosely closed closet in the laboratory. At the end of this time the bottles were opened without flaming their mouths, and cultures made from the solutions, but no growth appeared upon the media. The bottles were then allowed to stand uncorked for a week in a closet which stood just in front of the window. This closet was opened four or five times a day, and no care was taken to prevent contamination with dust. At the end of this time the collyria were still clear, and cultures from them showed no growth. The next day happened to be a breezy one, and, as the door of the closet was open, the dust from the street had free access to the open bottles. Though the solutions themselves still appeared unaffected, cultures from the eserine and cocaine yielded a slight growth, but the atropine remained

sterile. This test was much more severe than any to which the collyria, preserved even with the slightest care, would be submitted.

He would suggest, therefore, that it would be advantageous in making up collyria to use trikresol water (1 to 1,000). In addition to the usual solutions kept in the ordinary treatment case, there should also be a small vial of trikresol water for rinsing the pipettes after use. By this method, he thinks that the fungous and bacterial growths often found in collyria might be prevented, as well as any eye-complications resulting from the use of a contaminated solution. These collyria have now been prepared for three months, and no growth, fungous or otherwise, is apparent in any of them, and no growth is yielded by cultures.

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### BLINDNESS FROM OPHTHALMIA NEONATORUM.

Dr. Boerne Bettman, (*Journal of the American Medical Association*, May 19, 1894; *Therapeutic Gazette*, July, 1894,) bringing this matter before the Chicago Medical Society, contributes the following information:

If we consult the United States census from the year 1850 to date, we learn that the number of blind enumerated during the previous decades is as follows: 1850, 9,794; 1860, 12,658; 1870, 20,320; 1880, 48,928; 1890, 50,411.

If compared with the population, which increased from 23,191,876 in 1850 to 62,622,250 in 1890, we obtain the following ratios:

Number of blind to 1,000,000 of population: 1850, 422; 1860, 403; 1870, 527; 1880, 976; 1890, 805.

As we are especially concerned about the State of Illinois, it will be interesting to ascertain the number of blind allotted to us in the records quoted. The following table comprises both the total number of blind for each period and their ratio to 1,000,000 of the population.

Number of blind in the State of Illinois: 1850, 264; 1860, 476; 1870, 1,042; 1880, 2,615; 1890, 2,834.

Number of blind to 1,000,000 inhabitants: 1850, 310; 1860, 278; 1870, 410; 1880, 850; 1890, 741.

It will be observed that the proportion of these sadly afflicted has greatly increased, notably so in 1880, and again decreased in 1890. These apparent inaccuracies are due to the methods of enumeration adopted, and are fully explained in the following

words of Dr. Wines, quoted from the Report of the Board of Public Charities of Illinois, 1892:

> With regard to the so-called "defective" classes, it should be known that Dr. Wines, in 1880, supplemented the enumerators' returns by correspondence with physicians, who added many names to the lists. This correspondence was not renewed in 1890, which accounts, at least in a large degree, for the seeming slight falling off in the ratio in 1890.

It is also established that proper prophylaxis, notably Credé's method, in hospital practice and in all cases where known infection exists, and milder prophylaxis in private practice generally, is capable of reducing the number of cases of this disease to a minimum.

Finally, it is established, on the one hand, that failure promptly to recognize and properly to treat this inflammation results in disastrous consequences; while, on the other hand, if suitable measures are quickly and thoroughly instituted, before corneal complications arise, the majority of cases will be brought to a successful termination. The exceptions to this rule are those cases which from the beginning assume a diphtheritic type, or as, for example, Dr. Randall has shown, those which, probably from some inherent malignancy not yet well understood, go on to destruction in spite of the best care and the most scientific treatment.

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PURULENT OPHTHALMIA: TREATMENT, ETIOLOGY AND PROPHYLAXIS.

Abadie (*La Médecine Moderne*, May 12, 1894; *Therapeutic Gazette*, July, 1894,) points out that, although in laboratory experiments weak solutions of sublimate, carbolic acid, iodoform, naphthol, resorcin and permanganate of potassium destroy the virulence of the gonococci, they do not accomplish this result when this microbe is found in the living tissue of the conjunctiva. All substances are then powerless to avert the evil. They have not a really curative action; they can only arrest to a limited extent the fatally progressive evolution of purulent ophthalmia. Nitrate of silver, on the contrary, has a truly specific and consequently truly curative effect on the gonococci, even when they develop in their favorite element, the human conjunctiva. Sometimes, if it is used too soon, and in the earlier stages of the disease, it causes a very unfortunate change in the character of the inflammation, which assumes a diphtheritic aspect. As a general thing, the strength of the solution should not exceed three per cent., but the application

should be thorough, so that the entire surface of the conjunctiva is reached, and the superficial slough which results should be entirely removed before a second application is made. He thinks that boracic acid, sublimate and permanganate of potassium (1 to 1,000) are about equal in their effects, but prefers, during the intervals of the active applications of nitrate of silver, a solution of the same drug (1 to 1,000) in continuous sprayings, as recently recommended by Burchardt.

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### THE THERAPEUTIC VALUE OF WEAK LENSES.

Dr. F. C. Hotz, of Chicago. (*Journal of American Medical Association*, Vol. XXII., No. 13, and *Ophthalmic Review*, June, 1894.) Admitting that while formerly patients with weak eyes have often received unnecessary medicine, they now often receive superfluous spectacles, Hotz yet cannot agree that the line of usefulness should be drawn against glasses of very low degree.

The mere fact that in a large number of cases of eye discomfort low degrees of refractive error are found, proves nothing, since we know that slight departures from emmetropia are so very common in the human eye. And even the mere statement that the patient was relieved, is in itself not sufficient evidence of the curative power of these glasses.

But if all local or distant conditions, which we know to produce ocular distress independent of refractive errors, are absent, or have been removed without restoring comfort to the eye, if the glasses are used under precisely the same conditions after the glasses have been prescribed as they were used before, or if an irritability of the eyes has resisted all treatment, but is speedily relieved by glasses, then, and then only, we are warranted in attributing the relief of the eyes to the correction of the existing slight refractive errors.

Such cases are exceptional, but he has collected from his case-book the notes of fifty, in which sphericals of less than 0.75 degree, or cylinders of 0.25 degree or sphero-cylindrical combinations of low strength were prescribed. Of the fifty cases treated with weak lenses, thirty patients have reported good results, one patient has reported a negative result and nineteen have not been heard from. Even if all those not heard from are regarded as failures, the results, successful in sixty per cent. of the cases, are gratifying; and proof is afforded that the therapeutic value of these weak lenses is not mythical, but real.

It must not be forgotten that the eye is most successful in correcting, by accommodative efforts, the optical disturbances produced by slight degrees of hypermetropia or astigmatism, while in the higher degrees of these refractive errors it does not succeed, and therefore abandons the effort. The moderate degrees, therefore, are the prevailing errors of refraction found in patients complaining of the symptoms of eye strain.

The degree of ametropia does not constitute the principal condition in the production of distressing symptoms, and experience does not sustain the statement that hypermetropia or astigmatism less than 0.75 degree seldom causes discomfort or headache. The state of health, the condition of the nervous system, the occupation, are very important factors, and frequently account for the fact that in many persons a slight hypermetropia or astigmatism causes great distress, while other persons never experience the slightest discomfort from ametropia the same in kind and degree.

Many eyes can endure a great amount of strain with impunity, while other eyes are so constituted that their powers of endurance are quickly exhausted. One person may need glasses for the correction of a small amount of ametropia, while in another the correction of a much higher degree is unnecessary, and glasses would be superfluous. We cannot draw the line at a certain amount of ametropia, but should correct it, no matter how slight in degree, whenever it leads to disturbances for which eye strain constitutes the most frequent cause.

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### IMMEDIATE CAPSULOTOMY FOLLOWING THE REMOVAL OF CATARACT.

L. Webster Fox, M. D., of Philadelphia, (*Medical Bulletin*, July, 1894,) says that after the delivery of the lens (cataract) and all cortical matter is washed out of the anterior chamber, he proceeds with the rupturing of the posterior capsule. The instrument used is a gold-enameled hook, made as delicate as is consistent with keeping its shape. It is of malleable steel, so that it may be bent to any angle, which he finds is convenient, especially when the eye of the patient lies deep in the orbit. The hook is passed into the anterior chamber and behind the lower pupillary margin of the iris on its flat side. It is then rotated backward, hooked into the capsule, drawn gently upward to the mouth of the incision, rotated on its flat side again, and then taken out of the chamber. By this means the capsule is torn and the vitreus presses forward between

the rent. Very little or no vitreus shows at the mouth of the wound. If it does, he snips it off.

When the operation is performed after the simple method (without iridectomy), the same manipulation is carried on with but one exception, and that is, the line of incision is not so long The ophthalmostat is removed and the eyeball again irrigated with the hydrostatic eye-douche, followed by dropping one drop of sterilized atropia solution into the eye; the lids closed and thickly anointed with vaselin, which has been sterilized by boiling; over this, specially devised eye-pads, which have been sterilized by heat, held in place by adhesive strips, which keep the bandages securely fixed, permitting the patient to change his position in bed as often as is desirable. In twenty-four hours the dressings are removed and both eyes bathed with warm water and irrigated with the sulpho-carbolate solution, another drop of atropia applied and similar eye-pads, adjusted with as much care as at the primal, operation; and so continued from day to day until the eye is out of danger.

He has been in the habit of performing this operation in alternating cases for ten years. In those patients upon whom the operation was performed, he had to repeat a needle or capsulotomy (scissors) in about 15 per cent. of the cases; where it was not performed, in about 75 per cent. In the 15 per cent. of the cases where it did not succeed, he can only attribute it to a very thick posterior capsule, the vitreus receding after closing of the eyeball, and thereby not keeping the capsule separated, but practically closing again. His experience has led him to believe that there is less danger of inflammation of the eyeball in immediate capsulotomy than in a subsequent operation.

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### A SUGGESTION OF AN OPERATION TO CORRECT ASTIGMATISM.

Dr. W. H. Bates, of New York, (*Archives of Ophthalmology*, January–April, 1894,) after reporting several cases, makes the following propositions: (1) A corneal incision lengthens the radius of curvature of that corneal meridian which is at right angles to the line of the incision, and does not flatten any other meridian. The astigmatism produced is a regular astigmatism, and is corrected by a convex cylinder at an axis parallel to the line of the incision. (2) The immediate result is greater than the ultimate result. (3) The astigmatism produced is permanent

after a length of time—at least a month after the cornea has healed. There may be at first 3 d. of astigmatism produced. At the end of a month, there may be 2 d. At the end of three months, the astigmatism may still be 2 d., and this amount of astigmatism will be permanent. (4) The amount of astigmatism produced is greater the nearer the incision is to the center of the cornea. As much as 9 d. can be produced. (5) Mixed astigmatism occurs: (*a*) temporarily; (*b*) with incarceration of the iris.

A study of Case III. would show that proposition 1 still holds true, and that the myopia is due to other causes than the cornea. The myopia is due to swelling of the lens or to lengthening of the eyeball.

*The Operation Suggested.*—Incisions of the cornea are made at right angles to the most convex meridian. The amount of correction can be regulated by the number, depth and location of the incisions.

The operation promises a permanent effect. The risk to the eye is not great. It is not as dangerous an operation as the operation of iridectomy, which is usually performed without accident. Incarceration of the iris must be avoided to prevent the development of myopia.

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### CATARACT: MORPHINE, HYPODERMICALLY, AS A MEANS TO PREVENT PROLAPSE OF THE IRIS IN SIMPLEX EXTRACTION.

Dr. Eugene Smith, of Detroit, (*Archives of Ophthalmology*, January–April, 1894,) to prevent prolapse of the iris, proceeds as follows for simple extraction of cataract: After the toilet of the eye subsequent to the operation, he drops a one-grain solution of eserine (salicylate of physostigmine) in the conjunctival sac, gives a hypodermic injection of one-quarter grain of morphine sulphate, waits a few minutes, then lets the patients go to bed, where it is his choice that they remain from twenty-four hours to two days. Eight hours after the first hypodermic injection of morphia he gives another, and the following morning a third. This generally keeps the pupil contracted, *ad maximum*, from thirty-six to forty-eight or more hours.

The morphine injection also relieves the discomfort immediately following the operation, produces tranquility, checks a cough if present, and does away with involuntary traction of the recti or orbicularis muscles. Given hypodermically, morphine does

not produce vomiting. Whether the effect of morphine in producing contraction of the pupil be due to its sedative action upon the sympathetic nervous system, in consequence of which the capillary vessels of the iris become somewhat engorged, and the pupil contracts strongly, or the contraction be due to a stimulation of the motor-oculi centers, he does not know ; but that it seems to fulfil many indications, and have a most happy effect, he has demonstrated to his own satisfaction in the sixteen cases in which he has employed it.

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## NEUROLOGY.

By WILLIAM C. KRAUSS, M. D.

### JACKSONIAN EPILEPSY DUE TO AUTO-INTOXICATION OF GASTRIC ORIGIN.

In the *Rivista Sperimentale di Freniatria edi Medicina Legale*, Vol. XIX., fas. iv., Doctor Cristiani describes a very interesting case of Jacksonian epilepsy, due to gastric intoxication. The patient was a man 52 years old, strong, healthy, with good family history, no history of vices or excesses ; no disturbances of any of the sensory organs, no arterio-sclerosis, no malformation of head or scar on scalp ; urine normal in quantity and quality. For some years he has suffered from stomach and intestinal disorders, such as loss of appetite, nausea, ructus, pyrosis, tongue coated, mouth dry and bitter, bowels constipated. Occasionally, besides these symptoms he would notice paranesthesia of the limbs, flushings, then coldness of the extremities, and such mental symptoms as depression, melancholia, hypochondriasis, irritability, cephalalgia and vertigo.

On the morning of September 8, 1892, he had the first attack. The aura was distinctly felt, consisting of a feeling of heat in the head, anxiety and precordial oppression. He then felt creeping sensations in the arm and leg of the right side, followed by clonic spasms first of the right arm then of the right leg, and at the acme of the attack the right side of the face would become involved. These paroxysms would last from five minutes to fifteen minutes, with no loss of consciousness, would not fall to the ground, but, in a vaccillating manner, stagger to the right. On the first day he had three attacks, then about one attack every other day for two weeks. The pupils were dilated, patellar reflex exaggerated on the right side, and urine contained an excess of urea and phos-

phates. The treatment directed to the gastric catarrh had the effect of controlling the attacks, and in over a year they have not reappeared.

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### THE SPECIFIC GRAVITY OF THE URINE OF THE INSANE.

After reviewing the labors of several alienists on this point and the variance in their results, Dr. Umberto Stefani, of Padova, made a careful investigation, and studied for one or more months sixty cases of mental diseases, with the following results: In all cases of acute insanity, independent of special forms, the specific gravity ranged from 1030 to 1040, and sometimes higher. If the form is of short duration, the specific gravity will fall as the psychic symptoms diminish, until it reaches the normal, or even lower. When the remission of the psychic symptoms is followed by an exacerbation, the specific gravity of the urine will again increase.

If the course of the disease is long and tends to become chronic, the density of the urine ordinarily will, after a time, commence to diminish until it reaches normal or falls below. In cases of imbecility, paranoia, senile dementia and paresis without spells of excitement, the specific gravity of the urine is not increased. But if continued, frenzy and excitement develop, the specific gravity will increase to 1030–1040.

The writer throws out the suggestion that, in the examination of the urine, we have an index, probably, of the prognosis and course of the disease. A table of charts, showing the exacerbations and remissions, adds to the interest of the paper.—*Rivista Sperimentale di Freniatria edi Medicina Legale*, Vol. Xp., fas. i., 1894.

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### A STUDY OF THE REFLEXES IN THIRTY-FOUR EPILEPTICS.

Dr. Arthur Douaggio, of Reggio, publishes in the *Rivista Sperimentale di Freniatria edi Medicina Legale*, fas. i., 1894, the results of his examination of the reflexes, muscular force and measurements of the extremities in 34 cases of epilepsy. In the interval he found the patellar reflexes exaggerated in 15, medium in 8, diminished in 7 and absent in 2 cases. There existed in the 15 cases a difference of exaggeration, being stronger on the right side in 10, stronger on the left in 5 cases. The tendo Achilles reflex in 27 cases was exaggerated in 9, medium in 13, diminished in 3 and absent in 2 cases. The bicipital in 31 cases was exaggerated in 8, medium in 12, diminished in 9 and absent in 2 cases.

The olecranon reflex was exaggerated in 6, medium in 9, diminished in 9 and absent in 7 of 31 cases examined. The abdominal reflex in 32 cases was exaggerated in 3, medium in 3, diminished in 11 and absent in 15 cases. The cremasteric reflex in 25 cases examined was exaggerated in 2, medium in 8, diminished in 7 and absent in 8 cases. Pupillary reflexes, examined in reference to pain, reacted promptly in 10 cases, medium in 9, slowly in 4 and not at all in 7 cases of 30 examined. In regard to the light reaction, prompt in 5, medium in 13, slowly in 12 cases. In reference to the inequality of the pupils, the author found in 4 cases only a slight inequality.

# Selections.

## AN EASY METHOD OF BATHING IN TYPHOID FEVER.

Every new medical text-book and periodical accumulates statistics testifying to the brilliant results following the use of cold baths in typhoid fever. The hospitals in which this method is chiefly carried on are almost, without exception, showing a higher percentage of recoveries than ever before under any other plan of treatment.

Why is it, then, that this method is not universally adopted and carried out in private practice? The answer is simple.

Easy as it is in a hospital with an abundance of skilled assistance, there is no method of treatment in use so difficult to carry out properly as tubbing in typhoid fever in private families.

As the family bath-room is generally out of the question, on account of its inconvenient location, and use by others of the household, it becomes necessary to buy a large portable bath-tub.

Even in cases where there are two trained nurses, it is necessary to call in the clumsy assistance of some members of the family to help in the lifting of the patient to and from the tub, and this is a strain on them, and not unattended with risk to the one who is sick.

There is, undoubtedly, a widespread opposition among the laity, both educated and uneducated, to the use of "cold baths" in fever. A young physician must have a very strong hold on the family, and enjoy their most complete confidence, to take the risk of the responsibility, if the disease takes a bad turn later from any accidental complications, and even older men will sometimes hesitate.

A physician of high standing and extensive practice in the city recently said to me: "I do not find that tubbing is practicable in private families, much as I would like to make use of it. I have to content myself with sponging and packs, and have had some success with constant use of an ice-coil over the abdomen as a substitute. If the ice-coil acts so well in lesions of the peritoneal coat of the intestines, why should it not have a similar result in lesions of the mucous coat?"

But all these three methods, sponging, wet pack or ice-coil, while they add to the comfort of the patient, do not cause very decided or long-continued lowering of the temperature.

Again, one who has had bad results from necessary changing of the position of a patient in an advanced stage of typhoid, to examine the back of the chest or something equally simple, causing disagreeable heart symptoms, will rather dread the process of lifting a patient out of his bed for any reason whatever, especially if the patient is large and the bed a double one.

The following method, which I once saw used in a hospital in Buffalo, commends itself as a simple solution of the whole problem. I have never seen it published in any medical journal or work, and am sure that it has not often been tried.

It is a very easy thing to slip a rubber blanket under the patient, and raise the two sides and the ends at the foot and head of the bed, nine or ten inches, by a row of pillows, bolsters, sand-bags or simple boards.

The rubber blanket ought to be of double thickness, as large as can be purchased, and special care must be given to the arranging of the corners. When this is done, you have the patient at the bottom of an impromptu bath-tub, into which you can pour water at any desired temperature, and in sufficient quantity to partially or entirely cover his body.

Only two inches of water would be enough to give a cool sponge-bath ten times as efficacious as the gingerly sponging possible under ordinary circumstances, and if the sides and corners are firmly fixed, you can easily make this tub hold all the water you desire. The water may be run from the nearest faucet by a rubber tube. I have found it a simpler and equally successful method to carry it in pails and pour it over the patient, starting with tepid and gradually cooling it down to the desired temperature.

The neatest method I have found by experiment is to use a

large "watering-pot" with a sprinkler, such as is used for watering plants. This is a method which will not commend itself to those who dislike humble and commonplace methods to accomplish something that more complicated and more impressive methods might do.

I believe this kind of a bath will always be grateful to the patient, and if it is found necessary to use water at a decidedly low temperature, would give rise to less shock than a sudden plunge into a tub filled with very cold water. The effect on the temperature is the same as it would be under the other method with a stationary tub.

The water can be removed, without spilling a drop on the bed, by siphoning with a rubber tube, or dipping with a small pitcher or cup or sponging. Then the blanket can be dried and left in place, covered by a clean sheet, or, better yet, removed and dried in the sun.

All this needs a little care, for it would be a very serious and troublesome accident to soak the patient's bed-clothing and mattress, but the difficulty and risk to the patient cannot be compared with that attending the use of the ordinary tub. And, best of all, in those cases where the family or friends must do the work, and the employment of trained nurses is impossible on account of expense, this method can always be successfully used when tubbing would be out of the question.

I have not found one single objection to the employment of the method in private cases, and cannot see why it could not be used in hospitals.—*Dr. W. B. Noyes in Medical Record.*

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## THE CONDUCT OF ORDINARY LABOR THROUGH EXTERNAL EXAMINATIONS SOLELY.

Drs. Leopold and Spörlin make a warm plea for limiting examinations made in the course of ordinary labor, to the external parts, and adduce the advantages of such a course (*Med. News*). Infection is thereby avoided; the natural sense of modesty of the parturient is not offended; and careless rupture of the membranes is avoided. Skill in external examination is acquired with reasonable readiness. In the large majority of cases such examination alone is sufficient for the recognition of the position and presentation of the fetus, and for the study of the course of an ordinary labor. As there can be no objection to its frequent exercise,

abnormalities of parturition may the more readily be detected early, and means of correction promptly employed. Experience soon teaches the difference in the position of the fetus assumed in case of pelvic contraction on the part of the mother. The position and presentation having been recognized by external examination, internal examination for the determination of possible pathologic conditions of the birth canal need be but brief, and can be conducted with great care. For the attainment of this desirable result it is essential that the obstetric pupil familiarize himself thoroughly with the conditions of normal labor as determined by physical external examinations, as well as with the physiology of normal labor. Obstetric operations are principally to be taught upon the phantom.—*St. Louis Med. and Surg. Journal.*

## EXTRA-GENITAL SYPHILITIC INFECTION.

The following from the *Archiv. f. Dermat. u. Syph.* by Dr. R. Krefting appears in the *Am. Med. Surg. Bulletin :* The writer of this paper has taken his statistics from the University Clinic, of Christiania, Norway. During the twenty-five years ending December, 1891, 3,455 syphilitic patients were received, and 539 of them were cases of extra-genital infection. That is about 15⅗ per cent. of all the cases. There were 61 men, 231 women, 247 children thus infected. There was a remarkable variation in the proportion between the genital and extra-genital cases in different years, running from 5 per cent. in 1891 to 34 per cent. in 1875. The variation is in part accounted for by the enforcing of police control of prostitution in the latter years, a larger proportion of genital lesions being sent to the hospital. Of the 539 cases, the location was noted in 280 cases as follows :

| | | | | | |
|---|---|---|---|---|---|
| Lips | were affected in | ..... | 142 | cases. |
| Gums | " | " | " | ..... | 1 | " |
| Tongue | " | " | " | ..... | 11 | " |
| Throat | " | " | " | ..... | 58 | " |
| Breast | " | " | " | ..... | 58 | " |
| Chin | " | " | " | ..... | 1 | " |
| Scalp | " | " | " | ..... | 2 | " |
| Popliteal spaces | " | " | " | ..... | 1 | " |
| Abdomen | " | " | " | ..... | 1 | " |
| Finger | " | " | " | ..... | 4 | " |

Of the lip lesions the upper lip was affected 76 times, the lower lip 49 times, the corner of the mouth 16 times, and both upper and

lower lips once. They were always more or less crusted, and when the crust was removed there was left either an erosion or a deep wound of cartilaginous hardness, sharply cut outline, and brownish red color. The secretion is scant and thin; induration well marked and characteristic, excepting in children, when it is often wanting. The submaxillary and other glands in the neck on the side of the chancre are enlarged and of marked hardness.

Of the 58 throat initial lesions, 36 occurred on the tonsils, 15 on the right and 21 on the left. In one case both tonsils were affected. They gave rise to difficulty in swallowing, but not constantly. The swelling and hyperemia of the tonsil; the characteristic swelling of lymphatic glands of the neck; the ulceration of the tonsil often deep, gangrenous and covered with a grayish slough; the induration, sometimes wanting, gives the diagnosis. If both tonsils are affected, the diagnosis is much more difficult.

Of the 58 cases of breast affection, 19 times it was the right, 27 times the left, and 6 times both. The base of the nipple was the part most often affected, and it might be entirely surrounded by the lesion, though usually it extended only half way round. The lesions are usually covered with a bloody crust, which being removed exposes a dark red ulceration. Induration was always present; the axillary glands of the same side were always swollen and sometimes the glands along the pectoral muscle.

Of the 539 cases the manner of affection was ascertained in 439 cases, and it was found that in four-fifths of the cases it was by the mouth, either from eating and drinking utensils, kissing, nursing or smoking. Only five cases were traced to pipes or cigars. Three-fourths of the cases were by means of eating and drinking utensils. The course of the disease in most cases was less favorable than when rising from genital lesions.—*St. Louis Med. and Surg. Journal.*

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Treatment of Chancre.—Dr. Willard Parker Worster claims (*Journal Cut. and Genito-Urin. Dis.*) that chancre is cured in the shortest possible time by the use of peroxide of hydrogen (Marchand) without pain or detention from business. The sore is sprayed with the peroxide under sixty pounds pressure and dressed with iodol powder, the same treatment being repeated. All the chancres reported were not by any means innocent, as some presented unmistakable signs of phagedena. The showing made by the author is certainly remarkable and worthy of trial.—O-D.—*St. Louis Med. and Surg. Journal.*

# Correspondence.

## PHILADELPHIA LETTER.

[*Special correspondence of the Buffalo Medical and Surgical Journal.*]

*The American Academy of Medicine—The Abuse of Medical Charity in the form of Free Dispensaries—The Failure of Queen & Co., the well-known dealers in Optical Goods—Gifts to Medical Colleges and Hospitals.*

The American Academy of Medicine has during the past decade thrown its powerful influence on the side of those who fought for higher medical education. The fight has been won, the aim is practically accomplished, and what is left to do will regulate itself without any special effort. Although we may yet be treated occasionally to a discussion on "the necessity for higher medical education" by those who have nothing original to offer to the profession, the work of creating a strong sentiment in favor of high standards is to a large extent accomplished, and he must be a courageous man indeed who will dare to stand up today and advocate a retrograde movement. It is very probable that the Academy will now, or in the near future, devote its energy to a subject of almost equal importance to the medical profession, although in a different sense, and that is the abuse of medical charity in the form of free dispensaries. The key-note of this abuse was probably struck by the *London Lancet* some time ago in an editorial on this question:

> The absence of any effective inquiry into the fitness of patients is monstrous. What would be thought of a poor-law system which gave relief without inquiry? It would be denounced as immoral and demoralizing. It is not otherwise with voluntary charities. Much efficiency may be dearly bought at the expense of the medical profession in the first place, and of demoralization of the poor in the second. The wide disapproval of it has been too long disregarded by hospital governors, and, we fear we must add, to some extent by medical teachers.

We have no reliable statistics in America relating to dispensary work, but, some years ago, reports gave to Edinburgh, with a population of 236,000, 43 per cent., *i. e.*, 103,100 who were relieved by medical charities. In Manchester the conditions were the same until the abuse received its proper attention and in ten years the 43 per cent. had been reduced to the reasonable figure of 6.89 per cent. There is not much doubt that we here in the United States

are not much behind in this matter when statistics are compared, and if the Academy can find friends enough among the profession at large to bring this "charity racket with free lunch counter" in the form of free medicines to its proper level, as successfully and as speedily as the higher medical education question, then a large majority of the individual profession, especially its younger members, will rise and "call them blessed."

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The well-known firm of Queen & Company, of this city, has failed, and it is interesting to note that one of the causes given to account for this failure is "a controversy with the medical profession of this city!" This "controversy" may find application in Buffalo. The firm, like almost all dealers in optical instruments, did, by an abundance of advertising, a thriving business in fitting people's eyes with spectacles on the plan of "gold glasses for $3.00 and upward, and eyes tested free of charge,"—just like they do it in Buffalo. Queen & Company, not satisfied with this, would employ at different times a recent graduate to do the testing, of course just as unscientifically as the optician's assistant did it before him, and, in consequence, failing to relieve just as many eyes, —but the halo of an M. D., though he had degraded himself voluntarily into an optician's clerk, drew large crowds to Queen & Company to have their eyes tested by a *physician*, "free of charge."

Finally, the medical profession of the city, recognizing the danger arising from this kind of performance, took the matter in hand, and after the "controversy," lasting quite a while, was ended, Queen & Co. ceased testing eyes for glasses altogether, and announced that they would only make spectacles from physician's prescriptions, thus finally recognizing the proper place of the optician in the community. The result shows that the income heretofore derived by the firm from misfitting the eyes of their fellow-men must have been large, indeed, if its loss was one of the causes of their failure.

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Gifts and legacies to medical colleges and hospitals are so few and far between, that each one ought to be recorded all over the land. Mrs. Eva Muller, a Philadelphia lady, left $5,000 to the German hospital absolutely, another $5,000 to endow a "Fanny Muller Free Bed," and another $2,000 on the death of an old lady who has to have the use of it during her life-time. We may well say: Go and do likewise. John Jones may build for himself a

costly mausoleum, costing hundreds of thousands, and the next generation has forgotten who he was and passes perhaps remarks upon his wretched taste when walking past the expensive pile ; but a free bed, a free hospital, a free laboratory, an endowed professorship, these things *live* forever and the donor is *never* forgotten.

J. P.

## Therapeutic Notes.

Pernicious Anemia.—Stengel (*Therap. Gaz.*) says the rapidity of improvement following the use of arsenic, stamps it as almost specific. He gives it in the form of Fowler's solution, beginning with two-drop doses, rapidly increasing it to ten drops, and then more slowly to fifteen drops or more. It should always be given after meals. He has seen symptoms of gastric disturbance more frequently subside than become aggravated from its use. Under no circumstances should it be pushed so far as to produce diarrhea. In addition, the patient is at first to be confined to bed, and the diet should be nutritious and easily assimilable. The deficiency of hydrochloric acid in the gastric secretion often requires it to be administered.—*Polyclinic.*

Creasote for Phthisis:

R—Creosoti (Beechwood).....Min. xxx–lxxx.
Tinct. Cardamomi.....f℥iv.
Glycerini.....f℥ij.
Alcoholi.....q. s. ad. f℥ iv. M.

Sig.—Two teaspoonfuls in water after meals.

Note.—To the glycerine add the creasote, then the tinct. cardamom and alcohol.

The above is used in cases of pulmonary tuberculosis presenting evidences of breaking down of tissue, or in which signs or symptoms of catarrhal processes in any portions of the air passages are present, or in which there is continuous elevation of temperature or intermittent or remittent fever exceeding 99½° F. The smaller dose of creasote is used at first, and the quantity gradually increased until five drops, four times a day, is reached as a maximum.—*Solis-Cohen.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. SEPTEMBER, 1894. No. 2.

## SUMMER INTESTINAL DISEASES OF CHILDREN.

AS THE Summer season draws near unto its close, with its cool nights and hot days, we are confronted with the annual visitation of diarrhea, dysentery and cholera infantum, that children under two years are especially liable to be seized with. At this time the medical journals are publishing the annual output of literature, good, bad and indifferent, on this subject. We speak thus of the quality of the publications because while much of it is excellent, yet a certain proportion is written by young or inexperienced physicians, whose chief aim in writing appears to be to advertise some special preparation of food or medicine that they have been employed to write up.

The fact is that, in the care of infants, the greatest stress is to be laid upon the prevention of the Summer enteric diseases. Unless the nurse or mother be skilled in all the methods of prevention, the doctor can be of little avail in his attempt to invoke the laws of cure. In other words, he must begin by instructing in and enforcing the most ultra principles of cleanliness. In bottle-fed children, which constitute a large majority of those suffering from these diseases, it is next to useless to give medicine unless the way therefor is prepared by establishing the most arbitrary lines of cleanliness. This means not only personal cleanliness as applied to the infant and its surroundings, including bed, clothing, napkins and everything employed in its toilet, but its feeding apparatus should be subjected to the most rigid scrutiny and all the known laws of aseptic cleanliness be applied to prevent infection. A single point overlooked will often cause fermentation, and fermentation is only a step short of infection. Colonies of bacteria are rapidly produced in an intestinal tract poisoned by ferments that afford habitats for these microörganisms and a nidus for the generation of toxines.

Patent feeding bottles with long tubes are an abomination, and inventors thereof deserve the severest castigation. A four or six ounce bottle, with a rubber nipple that can be turned inside out, is the only apparatus necessary, and in its very simplicity is constituted its great excellence. These can easily be kept clean by employing a weak solution of bicarbonate of sodium and further cleansing them in a boracic acid solution with a proper brush, just before filling for use. Duplicate or triplicate bottles and nipples should be in constant employ, so that a fresh set may be always in readiness.

But, in spite of the utmost care by the most scrupulously neat attendant, intestinal diseases will appear, and in these cases the cause must be looked for in the food itself, either as to quality or quantity, or in the further fact that slight fermentation has begun before ingestion. It is often very difficult to detect this in milk or to prevent it unless it is sterilized. When traveling with infants, under an ever-changing environment, it is almost impossible to obtain ideal conditions. Boiled milk or artificial food must be employed during the period of touring.

In this brief statement it has not been our aim to discuss details, but rather to refer to a few well-established principles, our object being to accentuate the importance of prevention and not to enter into a lengthy dissertation on treatment. The latter is elaborately set forth in works on pediatrics, and most physicians are familiar with the principles that apply in the therapeutic management of these cases.

As a final word, we may remark that it is of the greatest importance that infants afflicted with these maladies shall be properly clothed. Light, soft flannel should be the chief texture worn, and great care should be exercised in keeping the extremities warm and in combating the tendency to overload the infant with too much bedclothing. First, last and always, they should have plenty of fresh air; hence, carefully ventilated apartments by night, and perambulating in the open air by day, should be a never violated rule.

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## TOPICS OF THE MONTH.

THERE are more quacks in Buffalo than it has any reasonable use for, and every legitimate attempt to suppress them should not only receive the moral support of the profession, but the earnest and active coöperation of the constituted law authorities. A conviction or two for practising medicine illegally would serve to break

up the nest of fiends that prey upon the unwary. Ignorant people visit the offices of these pretenders in large numbers and furnish almost their sole patronage. Uneducated people accept for truth the flaming advertisements in the newspapers and sown broadcast, especially when supported by pictures of the alleged successful cures. They, too, accept the statement of persons who claim to have been benefited by so-called treatment at the hands of these frauds, which is a sort of mouth-to-mouth method of advertising.

It should be the province of the medical profession to aid in the suppression of all illegitimate medical practice, and if the people cannot be enlightened on this subject, they should be prevented from being duped by the strong arm of the law.

Dr. J. F. Krug, chairman of the Board of Censors of the Medical Society of the County of Erie, has been doing some good work in the direction named, and he deserves not only the thanks of the profession, but to be aided in every way possible in the discharge of his official duties.

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The Journal has heretofore with greater or less frequency given warning with reference to the dangers of the propagation of consumption, as well as spoken with reference to its prevention. Among other dangers that we have warned against is that of railway travel. While this menace is very great even in common railway coaches, it is increased many-fold in sleeping cars and especially in state rooms where invalids usually travel. The *Medical Record* recently published an article on this subject giving experiments made in the laboratory of the Imperial Board of Health of Germany. These investigations show that the seeds of consumption were found in abundance in the dust collected from the floors, walls and seats of railway carriages. Samples of dust were taken from forty-five compartments of twenty-one different cars and 117 animals were inoculated therewith. Part of these died very soon afterward of various contagious diseases before they had time to develop consumption. Of the rest, killed four to six weeks after inoculation, three had tubercles, and these were inoculated with sleeping car dust taken from the walls, cushions and ceilings.

We think it is high time that a rigid system of inspection should be inaugurated looking to the thorough cleansing and sterilizing of sleeping cars, and to the adoption of sanitary cars for day and night use. Especially do we urge the adoption of cars

free from drapery, carpets and upholstery, and which shall be susceptible of being made aseptically clean after each tour of use.

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Dr. Hermann M. Biggs, bacteriologist to New York Board of Health, was sent to Europe to investigate Koch's new discovery, which is alleged to be an infallible remedy for diphtheria. Dr. Biggs has made his report to the health department, in which he appears to justify all that has been said for the antitoxin cure. In this report he says :

Out of more than 250 cases treated by the new method (the antitoxin), when the cases were inoculated on the first day, 100 per cent. recovered ; when treated on the second day, 97 per cent.; on the third day, 87 per cent.; on the fourth day, 76 per cent.; on the fifth day, 57 per cent. The conclusions seem to be justified that (1) any person after exposure can be rendered immune to the disease if the symptoms have not already developed. (2) If cases can be treated within the first thirty-six hours, or perhaps forty-eight hours, of the disease, the mortality may be reduced practically to zero. After this time the value of the treatment becomes progressively less.

The *British Medical Journal*, August 18, 1894, contains the details of three typical cases of diphtheria successfully treated with antitoxin.

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While it is true that the good which men do lives after them, it is not always as promptly recognized as it should be. The entire profession of medicine in this country will ever feel grateful to the memory of Dr. John H. Rauch for what he did in advancing the standard of medical education while he was secretary of the Illinois State Board of Health, and for his labors in maintaining and improving the same after he retired from official life. We are pleased to note that Dr. R. H. Fitz, in his annual address before the Massachusetts Medical Society, paid graceful tribute to the memory of this distinguished publicist, as follows :

There is not only a prolongation of the period of study as the effect of these laws, but there is also an increased demand for a preliminary education, the establishment of new professorships, and more exacting examinations for the degree. Of all agents distinctly bringing about this change, the Illinois State Board of Health, and especially its secretary, the late Dr. John H. Rauch, deserve the highest consideration.

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Messrs. W. H. Schieffelin & Company, of New York, have published a handsome brochure, entitled One Hundred Years of Busi-

ness Life. It is a simple and well-written history of the house of Schieffelin from 1794 to the present, and very appropriately adopts the motto, "*Respice, Adspice, Prospice.*" One hundred years of continuously successful business life is so unusual in the rapidly changing conditions that obtain in this country as, in our opinion, to justify this prosperous house in so appropriately celebrating its centennial. It has survived the disruptions of business incident to three great wars, and has equally successfully withstood the shock of as many financial panics, emerging each time stronger for the trials it had passed, and, reconstructing itself with new blood and enlarging its avenues of trade, stands today as one of the most prosperous houses of its kind, noted alike for its business integrity and its sound financial standing.

In this well-illustrated history is given biographical sketches of the heads of the house from time to time, and it closes with a fitting tribute to its subordinates. It is not uncommon for persons to serve the firm for twenty-five years, and it has in its employ now ten persons whose periods of service range from thirty to forty years, while one has remained the extraordinary period of forty-five years. Such a record speaks more eloquently than words for the sterling integrity of the house, which deserves the congratulations of its fellow-citizens on this centennial anniversary.

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The Buffalo State Hospital has suffered a severe blow in the death of Dr. J. B. Andrews, its able and accomplished superintendent. Dr. Andrews was appointed when the institution was organized, in 1880, and had served continuously until his death. Appropriate action on this sad event has been taken by the Medical Society of the County of Erie, full report of which is published in another column. Our purpose here is only to refer to the relations Dr. Andrews sustained to the State Hospital and to the effect produced on the institution by his death.

While no man is so necessary to the world but that his place, when vacated, can be filled more or less completely, yet it must be confessed that the managers of the Buffalo State Hospital are confronted with a difficult problem in the appointment of a successor to Dr. Andrews. He was remarkably well equipped for the high office he held, both in physical strength and in mental equipoise. A man of great amiability of character, profundity of learning, admirable executive powers and courteous demeanor, he was unusually well armed with all those qualities that go to make

up a great alienist and a successful superintendent of a large hospital for the insane. We repeat that to select a successor to such a man is no easy task. However, under our present laws, the matter is much simplified, and there is every reason to believe that Dr. A. W. Hurd, who has been so many years Dr. Andrews' first assistant, and who has necessarily a large experience, will, if chosen, make an acceptable and satisfactory superintendent.

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THE twenty-third annual report of the managers of the Buffalo State Hospital, the same being for the year 1893, is on our table. It is an interesting showing of the work of the year and should be examined by every one interested in the care of the insane. The wards are overcrowded, in spite of the recent extension, and new buildings are demanded. These are in process of construction and, probably, by another year will be ready for occupancy. These, when completed, will make the Buffalo hospital the largest and most complete institution of its kind in the country. Such a hospital deserves well at the hands of the State, as well as the moral support of the community.

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THE *Maryland Medical Journal* makes a very sensible comment relating to the unkind words that often pass between medical journals, as follows:

Medical journals are usually published as mirrors of thought and medical opinion of the country or state whence they emanate, and they should by all means be free from bickering and back-biting, and yet hardly a week passes but some are finding fault and looking for each other's weak points. This is not only unnecessary, but it is extremely distasteful to most readers, who are not seeking for gossip or private grievances in a scientific journal, but read that they may be benefited and instructed. It is only the poorer papers of a certain class that get their support by printing slanders against their neighbors, and all such personalities should be omitted from the columns of respectable medical journals.

We think it would be well for all of us to read this over occasionally, hence have reproduced it for the purpose of accentuating this able editor's excellent thought.

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THE legislature of New York (*Maryland Med. Jour.*) has passed a bill establishing a pension fund for employes of the health department. This act provides for physicians, nurses, clerks, and other employes who have served a term of twenty years, and for the families of employes dying while in discharge of duty. The pensions will be paid from a fund created by the fines and penalties collected for violations of the city health laws and by fees for examinations of the records.

## Personal.

Dr. F. G. Moehlau, formerly of 1266 Jefferson street, Buffalo, has been appointed superintendent of the Steuben Sanitarium at Hornellsville, N. Y.

Dr. Henry Osthues, who graduated at Niagara University in May, and who has received the New York State license to practise medicine, after an examination in which he was classed among the honor men, has located at 1266 Jefferson street, Buffalo, and assumed the practice vacated by Dr. Moehlau, consequent upon his removal to Hornellsville.

Dr. Thomas Lothrop, of Buffalo, has returned from his European visit and resumed his practice. He looks much invigorated by his rest, and will resume his obstetric lectures at Niagara University on Tuesday, September 25, 1894.

Dr. Swan M. Burnett, of Washington, D. C., who was attending the ophthalmological congress in Edinburgh, was called home on account of the illness of his son Vivian, who is suffering from typhoid fever at the home of his tutor in Washington. Mrs. Frances Hodgson Burnett, who had just opened her house in London, also came in obedience to a similar summons. It will be recalled by lovers of that beautiful story that Vivian, now seventeen years old, is said to be the original "Little Lord Fauntleroy."

Dr. Charles Huntoon Knight has removed from 20 West 31st street to 145 West 57th street, New York City. Hours: 9 to 12 and 5 to 7.

Dr. William C. Krauss, of the Journal staff, sailed for Europe, August 16, 1894, on the steamer "Columbia," to spend a few weeks in Hamburg and Berlin. He expects to return about the 20th of September.

Dr. Richard Henry Satterlee, formerly a member of the surgical staff of the Manhattan Eye and Ear Hospital, of New York, announces to the medical profession that he has opened an office

at 189 Delaware avenue, Buffalo. Practice limited to diseases of the eye and ear. Hours, 9 to 1 and by appointment.

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Dr. C. B. Burr, of Pontiac, has resigned as superintendent of the Eastern Michigan Asylum, a hospital for the insane, to accept an appointment as superintendent of Oak Grove, a private institution for the treatment of the insane, located at Flint, Mich. Oak Grove was built about four years ago, and is said to be one of the finest institutions of its kind in the country. It is situated in a large grove of natural trees and is practically perfect in point of equipment and arrangement.

Dr. Burr's reputation as an alienist is second to none in the country and his ability will have ample scope at Oak Grove. He is succeeded at Pontiac by Dr. E. A. Christian, formerly assistant superintendent of the Eastern Asylum.

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Dr. Byron Stanton, of Cincinnati, has been appointed president of the Ohio State Board of Health. Dr. Stanton's experience as a sanitarian has been verified by service as health officer of Cincinnati, and his promotion to this important office is a fitting recognition thereof.

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Dr. E. Arnold Praeger, formerly of Nanaimo, B. C., has removed to Los Angeles, California. His practice is limited to gynecology. His office is at rooms 56-57 in the Potomac Block, Broadway. Hours, 10 to 3.

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## Medical College Notes.

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The College of Physicians and Surgeons, St. Louis, announces a series of lectures by eminent American physicians and teachers. Among the non-resident lecturers announced are the following: Nicholas Senn, of Chicago, will give a series of lectures and clinics on surgery; Joseph Price, of Philadelphia, will lecture upon the technique of abdominal section; Joseph M. Mathews, of Louisville, will deliver lectures upon diseases of the rectum; and Joseph Eastman, of Indianapolis, will speak on the subject of hysterectomy. Besides these, William Porter, of St. Louis, will give a course of lectures on physical diagnosis, and James Moores

Ball, of St. Louis, will give five or six lectures on the history of medicine. It is expected that other lectures by well-known physicians will be announced later. This special didactic series will be given on Thursday evenings, and there is no extra fee charged to regular matriculates of the college.

This is an excellent plan, and distinguished physicians from various portions of the country should be oftener invited by the faculties of medical schools to address their students. Such a fashion enlarges the scope of training and enriches the curriculum.

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The forty-ninth regular session of the Medical Department of the University of Buffalo will begin on Monday, September 24, 1894. The following changes in the faculty and teaching corps have occurred: Dr. Arthur W. Hurd has been promoted from lecturer to professor on insanity; Dr. Francis T. Metcalfe has been appointed lecturer on comparative pathology; Dr. Ferdinand G. Moehlau has been appointed instructor in physiology, and Dr. J. F. Whitwell instructor in general pathology. The following clinical instructors have been added to the staff: On surgery, Dr. J. F. Whitwell; diseases of the nervous system, Dr. James A. Gibson; diseases of children, Dr. Maud J. Frye; diseases of the skin, Dr. Grover Wende; diseases of the nose and throat, Dr. George F. Cott.

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The twelfth annual college year of the Medical Department of Niagara University will open on Tuesday, September 25, 1894. The changes of teachers during the year have been as follows: Dr. Earl P. Lothrop has been appointed clinical assistant in obstetrics; Dr. Alfred E. Diehl, lecturer on histology; Dr. George Roberts, lecturer on chemistry, and Dr. Robert A. Poynton, lecturer on anatomy. Dr. L. Bradley Dorr has been promoted from lecturer on, to professor of, bacteriology.

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## Society Meetings.

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The American Association of Obstetricians and Gynecologists will hold its seventh annual meeting at Toronto, Ont., Wednesday, Thursday and Friday, September 19, 20 and 21, 1894.

The following corrections in the program published last month are announced: (18) The Present Status of the Surgical Treatment of Uterine Fibroids, L. S. McMurtry, Louisville, Ky.; (27) Restoration of Intestinal Continuity Without Mechanical Devices, William E. B. Davis, Birmingham, Ala. The following additions have been made: (29) Chronic Atrophy of the Vulva (Kaurosis Vulvæ), Its Pathology and Radical Treatment, Charles A. L. Reed, Cincinnati, O.; (30) The Reason Why Patients Recover from Tuberculosis of the Peritoneum After Operation, Robert T. Morris, New York; (31) Report of Two Cases of Injury of the Ureter following Operation for Cancer of the Uterus, L. H. Laidley, St. Louis, Mo.; (32) Vaginal Fixation of the Uterus as a Cure for Retrodisplacements, Clinton Cushing, San Francisco, Cal.; (33) Hydrosalpinx, A. H. Cordier, Kansas City, Mo. (34) *Discussion*—Should Antiseptic Vaginal Douching be made a Routine Practice in the Puerperium? Referees—A. H. Wright, Toronto, Thos. Lothrop, Buffalo, J. Edwin Michael, Baltimore, Md., H. T. Machell, Toronto; (35) Infectious Diseases During Pregnancy, A. H. Wright, Toronto; (36) Congenital Diaphragmatic Hernia—Reports of Two Cases, H. T. Machell, Toronto; (37) Report of Some Interesting Abdominal Operations, with Exhibition of Specimens, Rufus B. Hall, Cincinnati, O.; (38) A New Operation for the Radical Cure of Inguinal and Femoral Hernia, Charles A. L. Reed, Cincinnati, O.; (39) *a*, Present Status of Treatment of Pelvic Inflammations; (*b*) A Question of Priority, Walter B. Dorsett, St. Louis, Mo.; (40) Uterine Malposition and Disease as a Cause of Insanity, George R. Shepherd, Hartford, Conn. (41) *a*, Appendicitis, Four Cases Surgically Treated in thirty-seven consecutive hours; (*b*) Supplementary Paper on Ectopic Pregnancy, George S. Peck, Youngstown, O.

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The Association of American Medical Editors elected officers for the ensuing year as follows: President, John B. Hamilton, of Chicago; vice-president, G. M. Gould, of Philadelphia; secretary, H. B. Ellis, of San Francisco. The next meeting will be held at Baltimore during the session of the American Medical Association at that city.

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The Medical Association of Central and Western New York will hold its next annual meeting in Buffalo, Tuesday, October 16, 1894.

# Book Reviews.

Clinical Gynecology: Being a Hand-Book of Diseases Peculiar to Women. By Thomas More Madden, M. D., F. R. C. S., Ed., Obstetric Physician and Gynecologist, Mater Misericordiæ Hospital, Dublin; Consulting Physician, Hospital for Sick Children, etc., etc. Octavo, pp. xvi.—562, with 259 illustrations. Philadelphia: J. B. Lippincott Company. 1893.

Madden has been for many years a recognized authority on diseases of women, consequently what he has to offer always merits and receives the patient attention of the profession of medicine.

This book comprises the lectures delivered by the author to his hospital class and his contributions to medical journals. They have, therefore, the stamp of personality upon them, and are published in compliance with oft-repeated requests on the part of his pupils and confrères. Their object, therefore, is to impart a clinical knowledge which the author asserts has oftentimes been acquired in a slow manner and frequently has been the result of dearly bought experience.

Madden divides his book into eight parts. In Part I., consisting of ten lectures, he deals with diseases and injuries of the perineum, vulva, bladder and vagina. Lecture second is devoted to a consideration of the methods of ordinary gynecological investigation. These are the methods usually described in treatises on gynecology, but Madden, we think, lays too much stress on the value of the uterine sound. He begins by recognizing the harmfulness of the instrument, but regards the sound as no less necessary to the gynecologist than the stethoscope or clinical thermometer is to the physician. In view of the fact that the uterine sound is being discarded as a useless instrument by the majority of gynecologists, we think this, to say the least, is pretty strong language.

Diseases and abnormalities of the uterus are treated upon in Part II., which comprises eleven lectures. These are, for the most part, well up to the modern standard in consideration and treatment.

Uterine displacements and flexions occupy Part III., consisting of six lectures. In this the usual number of pessaries are illustrated, most of which are of no use whatever.

In Part IV., devoted to consideration of diseases of the uterine appendages, Madden becomes interesting, and the eight lectures here given are full of instruction. The author, however, for the most part, follows the plans laid down by other treatises, and borrows many of their illustrations, always, however, with credit.

The remaining parts, in their consecutive order, treat of menstruation and its disorders; constitutional disorders connected with menstruation; pelvic inflammation and hematocele, and the diseases and abnormalities of pregnancy.

While this treatise has very many valuable points and is the result of patient observation by a careful teacher, yet we are not impressed with the fact that there is a great necessity for its appearance. It will be sought eagerly, however, by gynecologists, who must necessarily possess all literature on the subject that is published, especially when by such able authors as the present.

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INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Ophthalmology, Laryngology, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada Edited by JUDSON DALAND, M. D., Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the University Hospital; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption. J. Mitchell Bruce, M. D., F. R. C. P., London, England; Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland; Professor of Practice of Medicine in the University of Aberdeen, Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume I., Fourth series, 1894. Royal 8vo, pp. xii.—363. Philadelphia: J. B. Lippincott Co. 1894.

This volume opens with a memorial of Prof. Jean-Marie Charcot, by Dr. M. Allen Starr. Charcot's eminence as a clinician and a scientist fully entitle him to the words of praise bestowed by the memorialist. It is accompanied by a medallion etching in profile of Charcot, published as a frontispiece.

The local contributors to this volume are Drs. Charles G. Stockton, on Amebic Dysentery; Dr. Roswell Park, on Macewen's Operation for Rachitic Deformity of the Femur—Inflamed Hemorrhoids; and Dr. Matthew D. Mann, on Ruptured Tubal Pregnancy.

These clinics continue on the same popular lines as heretofore and are being received with increasing favor by the medical profession.

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REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1890-91. Volumes I. and II. Washington: Government Printing Office. 1894.

This report, although three years behind time, contains much of interest to educators. We think that such important questions as are evolved under the general term, education, deserve to be clothed in better manner than are these books. The government should not apply the same rules as to paper and binding to reports on education that it does to the patent office reports; and, again, it should print the education reports more promptly. These are intended to become a part of the various libraries of the land, and should be printed on good paper and bound in a substantial manner.

ESSENTIALS OF ANATOMY, INCLUDING THE ANATOMY OF THE VISCERA. Arranged in the form of Questions and Answers; prepared especially for Students of Medicine. By CHARLES B. NANCREDE, M. D., Professor of Surgery and of Clinical Surgery in the University of Michigan, Ann Arbor; Corresponding Member of the Royal Academy of Medicine, Rome, Italy, etc., etc. Saunders' Question Compends, No. 3. Fifth edition, with an appendix and 180 illustrations. Duodecimo, pp. x.—388. Price, $1.00. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

ESSENTIALS OF NERVOUS DISEASES AND INSANITY. Their Symptoms and Treatment. By JOHN C. SHAW, M. D., Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School; Consulting Neurologist to St. Catharine's Hospital and Long Island College Hospital. Saunders' Question Compends, No. 21. Second edition. Crown 8vo, 186 pages. Forty-eight original illustrations, mostly selected from the author's private practice. Price, cloth, $1.00; interleaved for notes, $1.25. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The first of these books, the Essentials of Anatomy, by Nancrede, having already passed to its fifth edition, its status is already determined. As a teacher of anatomy, Nancrede has few equals. Anatomy, too, is a subject for the memory to grasp, and such books as this which especially contribute to aid the memory are not only admissible but valuable.

The second book, The Essentials of Nervous Diseases and Insanity, is an exceedingly well planned condensation of the subject, but it has not the same place that the anatomical essentials possess, because the subject is not one to be memorized in the same sense that is anatomy. However, the author has made the most of his opportunity, and the book serves to make one of a very useful series.

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## BOOKS RECEIVED.

Annual Report of the State Board of Charities for the year 1893. Albany: James B. Lyon, State Printer. 1894.

The Johns Hopkins Hospital Reports. Volume IV., Nos. 4-5. Report in Neurology II. Baltimore: The Johns Hopkins Press. 1894.

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International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by Judson Daland, M. D., Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the University Hospital; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumptives. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer

on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume II. Fourth series. 1894. Royal 8vo, pp. xii.—363. Philadelphia: J. B. Lippincott Co. 1894.

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By various authors. Edited by Prince A. Morrow, A. M., M. D., Clinical Professor of Genito Urinary Diseases; formerly Lecturer on Dermatology in the University of the City of New York; Surgeon to the Charity Hospital, etc. With illustrations. In three large 8vo volumes. Volume III. Dermatology. Pp. xiv.—976. New York: D. Appleton & Co. 1893. Sold only by subscription.

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## Literary Notes.

THE *Richmond Journal of Practice* is the new name evolved from the well-known *Practice* edited and published by Dr. John F. Winn, of Richmond, Va. It is a handsomely printed magazine of forty pages and contains the announcement of an able corps of collaborators. We wish the editor and his beautiful journal the abundant prosperity that he and it deserves.

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DR. IRVING A. WATSON, editor of *Physicians and Surgeons of America*, has issued the following circular:

CONCORD, N. H., Aug. 12, 1894.

For the information of subscribers and others interested in *Physicians and Surgeons of America*, I have the pleasure to state that the work is progressing in a most satisfactory manner and as rapidly as is consistent with that scrupulous supervision necessary to insure accuracy.

I hope to have it ready for delivery in from six to eight months from this date. It will constitute the largest and most elegant volume on American medical biography yet issued, and will be illustrated by over a thousand first-class, half-tone copperplate portraits.

Patrons who have not already received a typewritten copy of their biography for correction will have the opportunity before their sketch goes to press.

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THE F. A. Davis Company, of Philadelphia, will issue, in September, a work which undoubtedly will be most favorably received by the medical profession. It is entitled *Obstetric Surgery*, and is written by Drs. Egbert H. Grandin and George W.

Jarman, gentlemen who, from their long connection with the largest and most widely known maternity hospital in the United States (The New York Maternity Hospital), are peculiarly fitted to expound the subject from the modern progressive standpoint of election.

The work is not burdened with literature references. The authors have aimed to teach that which ample and prolonged experience has taught them is good. The net price of the volume will be $2.50, and it will be printed in large, clear type, on excellent paper, and handsomely bound in extra cloth. The full-page plates, about fourteen in number, will be printed on fine plate paper, in photogravure ink.

A companion volume, dealing in the same terse, practical manner with pregnancy, normal labor, and the physiological and pathological puerperium, is in active preparation by the same authors.

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A Reading Idea for Invalids.—To make an envelope library, take ten envelopes, and put either a short story, an essay or illustrated article in each, writes Rose Crosby in an article describing an envelope library in the September *Ladies' Home Journal.* Lay the envelopes lengthwise before you, and rule off a space at the top in which to write the words, "Envelope Library No. I.," "Envelope Library No. II.," and so on through the series of ten. Rule off a space at the bottom in which to write the name of the story or article, and the author's name.

When the envelopes are filled, tie the ten together with a dainty ribbon, and send them where they will do the most good.

For use in hospitals these dainty packages of stories have proved very satisfactory. Weary convalescents, and especially those never visited by friends, are not only pleased with the gift, but are relieved from the fatigue that accompanies the holding of a heavy book or magazine.

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In spite of the new medical journals that appear from time to time, the number of them remains about the same, for many drop out of the race and cease to live. Whether this is the survival of the fittest is not always certain. It is, however, certain that the present hard times are felt by many medical journals and the fact that so many continue to live and even that new ones are born in these troublesome times, shows great faith in expected support and reliance on the profession for help.—*Maryland Med. Journal.*

Buffalo Medical and Surgical Journal

Vol. XXXIV. OCTOBER, 1894. No. 3.

# Original Communications.

## THE CAUSES OF HERNIA—WITH A NEW THEORY.

By BYRON ROBINSON, of Chicago.

To one who does nothing but abdominal surgery and gynecology it is of interest to note what produces hernia. Since man began to stand erect there can be but little doubt that he has suffered from rupture of some portion of the abdominal wall. Hernia has been attributed to innumerable causes, but the physician who thinks for himself perceives that hernia can be due simply to no one cause. Anyone who has observed hernia for any length of time must plainly see that it is a slow, insidious process. It may manifest itself suddenly, but that is only the end of a long persistent force. For the past five years I have paid some attention to the causes of hernia, its anatomical nature and radical operation for cure. On the living, hernia can be felt and seen; on the dead, by slow, careful dissection one can observe the passage through which the sac and its contents pass out of the abdominal cavity. By the radical operation one can observe how hernia may be cured. One must pass through these stages to well comprehend hernia. Death and failure in surgery always stimulates to better work, and anyone who does much abdominal work is sure to have both death and failure. I will enumerate some well-recognized causes of hernia and will also add one which I have not noticed in the books nor heard discussed. I gained the knowledge from the abdominal drain-tube.

1. The first and most general proposition is that hernia is due to deficiency of the anatomical structures around the hernial orifices. As one can notice, some people have small or deficient viscera, while others may have defects in the abdominal walls. The walls may be locally thin and deficiently closed at the apertures.

2. Most hernia is of congenital origin. The tunica vaginalis may remain open and allow easier descent of the viscera.

3. Heredity is said to play a rôle, but I can only see a cause in heredity on account of producing constitutional defects, weak and deficient anatomical structures. The hernia itself cannot be transmitted.

4. Intra-abdominal pressure is one of the great causes of hernia. It is well recognized that hard or heavy laborers are frequently afflicted with hernia. This is owing to the cause that hard or heavy lifting increases intra-abdominal pressure. Fatty deposits diminish the abdominal cavity and hernia is liable to increase from intra-abdominal pressure.

5. A prize essay was gained by a man who wrote that hernia was caused by swaddling clothes and high breeches. However, this was a long time ago.

6. Another man, a French servant, said it was due to a vegetable diet which tended to elongate the cecum. Never forget that this view is now exactly forty-eight years old.

7. Diseases of the upper air-passages are said to cause hernia. This would be due to cough, which simply increases intra-abdominal pressure.

8. Post-operative hernia is due to deficient healing of the essential anatomical structures, *e. g.*, in the post-operative hernia in laparatomy the tendon produced by the combined blending of the tendons of the external, internal oblique and transversalis muscles, does not unite properly. Age and malignancy I found tended toward deficient union in laparatomy.

9. Irregular action of the gut-wall is the one cause which I wish to add. In laparatomy I use an aluminum drain-tube perforated by quite small holes. The holes are only about one-half as large as those in Keith's glass drain-tubes. The holes are so small that one cannot push a piece of bowel into one. Now, in a series of 100 laparatomies, Dr. Waite and myself have had three cases where the gut-wall has penetrated these small holes in the side of the aluminum drain-tube. We were obliged to steadily pull the tube upward and then tie the bowel wall with a ligature. In one case of Dr. Waite's the drain-tube happened to be a glass tube of Dr. Keith's, and we were obliged to break the tube to safely liberate the gut-wall. Now, it appears to me that the hernia of the gut-wall in these tubal holes is due to irregular action of the muscles in the gut-wall. It is disordered peristalsis. The presence of the tube may irritate the muscles of the gut to act irregular or in a disordered manner. It seems to me the same views can be applied in many cases of hernia. As the gut-wall approaches the

small inguinal, femoral or the obturator canal, it may become stimulated to irregular action just as it does around the hole in the drain-tube. In my opinion this explanation will account for the fact that the gut is found protruding several inches through a very small aperture. Besides, the strangulated point will be found one to three inches from the end of the projecting loop. I have wondered almost as much how a loop of bowel could insinuate itself into such a small hole in the abdominal wall, as it could insinuate itself into a small round hole in my aluminum drain-tube. Of course, Keith's glass drain-tube has unnecessarily large holes, and in many cases it is common to find omentum, appendix epiploicus or bowel-wall engaged and even strangulated through one or more of these holes. In my aluminum drain-tube I especially made the side perforations small to avoid the liability to hernia. Hernia through a small hole in the abdominal wall is likely produced from irregular action of the gut-wall, just as invagination is due to irregular muscular action of the bowel-wall.

10. For a long time, and by experiment on quite a number of bodies, I thought that hernia was due to elongated mesentery or unduly long visceral support. But further trial at autopsies on, so far as I could judge, normal viscera has convinced me that I was wrong; for in normal adult bodies the loops of the intestines would reach beyond the hernial orifices without undue stretching.

11. Prolapse of viscera may aid in producing hernia, but so many have prolapsed viscera without hernia that it must be only an indirect cause. I have noted prolapse of the viscera especially in old female cadavers.

12. The erect posture is no doubt one of the causes of hernia, as it is rare in animals on four legs.

13. Rapidly repeated gestation induces hernia.

14. Imperfect or late descent of the testicle and potency of Nuck's canal.

The above and many more causes could be adduced as producing hernia, but the general view of hernia is soon obtained from the study of living and dead subjects that the cause of hernia is due to many immediate and remote factors, *e. g.*, in dissecting infant cadavers, male and female, one can find the cord or round ligament taking a straight course. The internal ring is directly behind the external ring. The inguinal canal has no length or obliquity. One ring lies exactly behind the other. In hernia one can find that the internal ring gradually approaches the other until in a

hernia of any size the internal and external ring are applied over each other. An exact idea of the cause of hernia will enable one alone to properly operate. The fact must be kept in mind that Nature must be restored. The obliquity of the canal must be restored.

Marcy's operation is based on the fundamental principle that must cure all hernia. Halstead's and Bassini's operation add the idea of the most effectual method of treating the cord. Fabricius's operation enables one to push the femoral artery and vein outward and build a solid buttress by new tissue by suturing Poupart's ligament to the pectoneal fascia. Cause and effect must be studied together. The theory of irregular muscular action of the gut-wall as a cause of hernia I have never seen in literature or heard it discussed; but it seems to me to offer an explanation of some very small tight herniæ. The combination of Marcy's, Bassini's and Halstead's operation for hernia enables one to restore pathologic conditions to natural ones and the use of these new operations on hernia convince me that I can cure cases.

There is some cause at work producing hernia on the right side more than the left. There is almost double the amount of hernia on the right so far as inguinal is concerned. Also the right side preponderates in regard to both femoral and obturator. Late descent of the testicle, excess of exercise and the direction of the mesentery have all been charged with the cause, but acceptable explanations are yet forthcoming.

34 Washington Street.

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## THE TREATMENT OF NEURASTHENIA.[1]

By WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

With the few hours' notice that the writer had in which to prepare a paper for this society, it will be impossible to enter into a critical study, or even to enumerate the modes of treatment which have been devised by neurologists the world over for this common and omnipresent malady. I can only give you the methods of treatment which I pursue, and which, in the majority of cases—not every case—have given satisfaction and beneficial results. Some forms of neurasthenia are amenable to no form of satisfactory treatment, partly due to the patient and partly to the physi-

1. Read before the Medical Society of the County of Erie, June 8, 1894.

cian who has permitted his case to become chronic, almost petrified, before seeking the neurologist's aid.

It might not be amiss, before discussing the treatment of the patient, to look him over and see what symptoms he offers, and what right the specialist has to class him in this aristocratic circle of invalids. The idea is gaining ground that specialists must discover some symptoms, present or absent, to make his diagnosis and hold the case, and when no other form of disease can be consistently defended, then to class him, if he be a nervous case, among the neurasthenics or hysterical. This view is partly right, but for the most part wrong. Partly right, because the boundary line between *health* and neurasthenia is traced in the sand ; wrong, because, although multiparous, the symptomatology of neurasthenia is quite distinct and well-defined from its neighbors, especially hysteria.

A neurasthenic individual is generally endowed with a certain quantity and quality of brain force, and in this respect he differs greatly from the hysterical, who possesses these qualities only in negative quantities. As a result of overwork, overstimulation, overindulgence, overworry, along with want of exercise, rest and enjoyment, he discovers, unless his wife has already told him, that he has become peevish, morose, inconsiderate, and a fault-finder of things in general. His mind, like his bowels, instead of being active has become constipated. Sleeplessness, forgetfulness and anxiousness, all conspire to make him that *bête noir* nervous, and he passes beyond the border line of health. A dull heavy ache at the occiput, sometimes at the vertex, and a corresponding heavy feeling at the lumbar region of the spine, are the only symptoms of pain that he can discover. Irregular and illy-defined symptoms, from every organ and tissue of the body, may now be expected, among the more important being palpitation of the heart, tachycardia, sinking spells, disorders of the vaso-motor system, as hot flushes, sense of heat, profuse perspiration of face and extremities ; the stomach contributes such symptoms as loss of appetite, indigestion, ructus ; the liver in many cases refuses to act because of insufficient nerve supply, giving rise to jaundice ; the kidneys, from the same motives, yield urine sparingly and of high specific gravity ; the genital organs are temporarily crippled ; the muscular system is enfeebled, and even the soul itself sympathizes with the flesh and becomes indifferent and impassive.

One symptom especially, to which I would call your attention,

is the irregularity of the pupils of the eyes. Text-books tell us that when the pupils are irregular, one contracted and one dilated, severe cerebral disturbances are present. I cannot subscribe to this teaching, as in all the cases of neurasthenia with vaso-motor disturbances that I have thus far observed, the pupils have been irregular, and they are so because the sympathetic nerve is implicated along with the others.

Another symptom which I have observed, more especially the past Winter and Spring, is an icterus, coming on very suddenly, lasting a few days, then, sometimes without hepatic stimulants, rapidly subsiding. This phenomenon is undoubtedly due to a weakened action of the hepatic branches of the vagus nerve, which, like the other nerves, is below par. I sometimes think that the vagus plays a very important rôle in the causation of neurasthenia, for certain it is that it becomes sorely afflicted in this disease.

This, then, is a very brief delineation of this affection, and to find the wherewithal to combat it, is the object of my presenting this paper today.

As regards treatment, I divide my cases into three classes: (1) those with a lithemic element; (2) those without a lithemic element; (3) those with marked vaso-motor disturbances.

In the three classes I ascertain the cause, or supposed cause, and insist upon its being removed, if possible. I then divide the first and second classes into asthenic and sthenic, and give the former about two ounces of hot black coffee before arising in the morning, followed in half an hour by a tepid sponge bath for five minutes, then rapidly drying and dressing for breakfast. The sthenic plethoric cases receive one-half to one ounce of some saline cathartic, followed by a cold sponge bath and, if he has the conveniences, a cold plunge. A feeling of relief and pleasure is soon experienced by these sufferers and they await with delight their early morning bath. At night, a warm or hot general bath is taken just before retiring.

In all the classes, electricity is a prime factor in the treatment. The electrodes being placed at the neck and sacral region, a descending and ascending galvanic current of from 3 to 5 milliamperes is employed for from five to eight minutes. The positive pole is then applied to the forehead and a current of 1 to $1\frac{1}{2}$ milliamperes is turned on for five minutes. The electrodes are then applied to the hands and a Faradic current is given, as strong as the patient can conveniently endure, for five minutes. The

electrodes have 40 and 70 square centimeters surface respectively, thus giving a large contact and a steady current. This electric treatment is carried out three times weekly in the severe cases, once or twice weekly in the simple cases. In some of these I prescribe a course of massage along with regular exercise and amusements. In the lithemic cases I prescribe a tablet containing:

| | |
|---|---|
| Lithium carbonate | 3 grains. |
| Phosphate of iron | $\frac{1}{3}$ grain. |
| Ext. nucis vomicæ | 1-9 " |
| Arseniate of soda | 1-27 " |

One to three tablets after meals. I have seen very good results follow the administration of this tablet, combining as it does an antilithemic with a nerve tonic treatment without giving rise to any gastric distress or instatia. Many of these patients cannot take iron in any form, either from imagination or fact, and refuse iron tablets with great persistency. The phosphate of iron, in this combination, produces no disagreeable effects and is well borne even by the most delicate and fastidious stomach. Instead of swamping these patients with manufactured or natural lithia waters, as is so often recommended, I advise drinking a glass of water after taking the tablets just referred to, and thus the use of lithia waters is dispensed with.

I have also used this tablet in cases of chronic rheumatism, and have had good reports from those taking them.

In the non-lithemic cases I prescribe the bromides and hyoscyamus with the spirits of lavender as a vehicle, and a nerve tonic containing the albuminate of iron, tincture nux vomica, phosphoric acid, with pepsin cordial as a vehicle.

Where there are special indications for treatment, as, for instance, insomnia, I give preference to trional in 5 and 10 grain doses. It is now over two years since I first began the use of this drug as an hypnotic, and, with but one or two exceptions, I have invariably had excellent results without any disagreeable after-effects. In those cases with obstinate gastric disorders, besides the treatment outlined above, I generally prescribe nux vomica before meals and dilute nitric or phosphoric acid after meals.

Constipation, if rebellious to the general treatment, yields readily to the aloin, strychnia, belladonna and cocoa pills, one to two pills before retiring.

Neurasthenics with vaso-motor disturbances have given me much annoyance and trouble, and I am far from satisfied with their

progress under any kind of treatment. I have tried almost everything on these cases, and although getting some results with electricity and strophanthus, still they react grudgingly, and after weeks of treatment they are in nearly the same condition as before. The rest treatment acts quite well on some of these patients, but it is the exception and not the rule that they improve under it. Some of my patients, after an interval of months, tell me that outdoor life has accomplished as much as anything toward restoring them to health. Just why these cases are so intractable, I have no explanation to offer, and would be pleased to get some hints on this point in the discussion.

I have not attempted to enter into a serious study of this affection, but merely to outline my manner of treating these cases, with a hope of starting a discussion, which, after all, is the most important feature of any medical meeting.

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## KAPOSI'S CLINIC—INTERESTING DERMATOLOGICAL CASES.[1]

By FRANK J. THORNBURY, M. D., Buffalo, N. Y.

I had intended giving a somewhat extensive account of the clinic of Professor Kaposi and the opportunities which it presents for the study of skin diseases, but am obliged to limit this paper to a more abridged description of certain interesting cases which I had occasion to observe during my course of study in Vienna.

Notwithstanding the great opportunities afforded by the clinics of London and Paris, it is generally conceded that Vienna presents a number of cases of certain diseases which are seldom, if at all, seen in the aforesaid and other localities.

Prurigo, the various forms of pemphigus, rhinoscleroma, phases of lupus, lichen, the varieties of favus, parasitic skin affections, molluscum, etc., and sometimes leprosy may be studied in Vienna with due satisfaction. The disease to which I would refer par excellence as being common in Austria and well exemplified in the clinics of Vienna is prurigo. The French for a long time claimed that this disease did not exist at all in their country, but when Professor Kaposi went to Paris he was able to discern a number of cases of what he designated prurigo, being treated by his French colleagues as other affections. Undoubtedly, this same explana-

1. Read before the Surgical Section of the Buffalo Academy of Medicine, September 4, 1894.

tion of the purported absence of prurigo in other countries would hold good.

Much of what has been said in the foregoing with reference to Vienna may be applied to the dermatological clinic of Prof. Pick, in Prague, which is inferior to few others in Europe, and presents opportunities quite as good as Vienna, if not better, in the presence of a far less number of students.

For him who will study laboratory, microscopic or experimental dermatology, the clinic of Unna, in Hamburg, is undoubtedly the proper place. One of the latter accomplishments of this celebrity is to have isolated, cultivated and demonstrated by inoculation, three separate and distinct varieties of favus, cultures of which I have in my possession and here exhibit. They were recently obtained from Unna in Hamburg.

One of the first cases to which I will refer as being of probable interest is a case of lichen rubor planus complicated by pemphigus vulgaris. A male patient, aged 50 years, suffering from the former disease, under treatment in one of the wards of Kaposi's clinic, suddenly became profoundly ill and presented a vesicular eruption, from which blebs soon formed. These contained a yellowish, albuminous and slightly alkaline fluid. The eruption showed an early tendency toward serpiginous arrangement, and was present not only over the lichen rubor areas, but also involved the previously unaffected portions of the skin, especially the anterior thoracic and abdominal regions, where large bullæ, containing purulent fluid, formed.

The patient was extremely prostrated, had a temperature for several days ranging from 39 to 41° C., and suffered from anorexia, insomnia and diarrhea. The lichen rubor with which he had been affected, and of which this was the second or third attack, was of the ordinary type. A mahogany-colored and, in places, waxy, glistening papular eruption was present over the anterior and lateral thoracic regions and upon the extensor surfaces of the lower extremities.

A case analogous to this one, Prof. Kaposi stated he had never seen, nor is there any similar instance recorded in the literature of lichen rubor planus, complicated by pemphigus vulgaris.

This patient continued in a precarious condition for some time, finally showed gradual signs of improvement, and was alive when I left Vienna.

The treatment of the case was symptomatic, and consisted, for

the most part, in the use of stimulants and restoratives. The arsenic, which had previously been given for the lichen, was discontinued.

I observed a number of other interesting cases of pemphigus. At one time eleven patients suffering from this disease were presented within fourteen days. It is proper to state that a few of these were walking cases, living in the vicinity, which were sent for by the professor while he was treating the subject in his lectures. At all times, however, there are from one to one-half dozen serious cases of pemphigus lying in bed in the wards, and the suffering which these patients must endure with the more or less extensive denudation of the cutaneous surface by the large blebs which form, is very intense. Perhaps, in addition to this, there are extensive pemphigus patches upon some part of the mucous surface, especially the mouth, so that even the natural processes of mastication and deglutition distress the patient, and his condition is altogether miserable. His immediate comfort is not much added to by the water bath, in which he must lie for two to five hours each day, in accordance with the rule of treatment here enforced. I refer to the so-called "permanent bath" which originated with Hebra in the treatment of severe cases of variola. All phases and varieties of pemphigus have been observed. One case of particular interest, to which I wish to refer, is that of a woman, 67 years of age, who was suffering from a dark, pigmentary discoloration of the skin in the axillary regions and over the inner surface of the thighs. There was very deep induration and some pain. The duration of the disease was nine months. The patient's history was negative. This was a case of "pemphigus papillaris vegetans" (Neumann), which is usually characterized by the rapid development of a fungoid growth that in places becomes necrotic and gives rise to a rich viscid secretion. This condition may continue for some time or a rapid serpiginous extension take place, with the formation of vesicles, and in this way the development of a large raw surface. Pemphigus which assumes the variety here outlined is usually fatal in the course of a few months, the patient failing rapidly from loss of the serum of the blood, or he may die as the result of some complication, as nephritis, or edema of the lungs, etc. In the case here cited, the course seemed unusually slow and none of the above grave symptoms presented themselves. Where reformation of the epidermis takes place with dark pigmentation, such as was noted in this

instance, recovery is not uncommon. The patient was doing well at the time I last saw her.

Such pemphigus papillaris vegetans areas occurring about the external genitalia, which is their common site, may be mistaken for certain venereal affections, such as condylomata, for a time, but with the appearance of similar pemphigus areas over other parts of the body the diagnosis becomes easy. Ample clinical material for the study of the various other phases of pemphigus, the acutus, hemorrhagic, serpiginous, pemphigus vulgaris, etc., was presented.

Rhinoscleroma is a disease which, while not exclusively confined to Austria-Hungary, is much more common in that country than in any other part of the world. A considerable number of cases, however, is observed in Italy. Its name implies, in a considerable measure, its character and location. The disease usually begins about the alæ of the nose, on the mucous surface, and in a very insidious manner extends backward through the posterior nares to involve the pharynx and upper respiratory apparatus. It may remain confined to one of these localities. There is great vascularity, and cellular infiltration of the tissues of a somewhat sarcomatous nature histologically, but with no such tendency clinically. Extreme induration takes place, as the suffix *sclera* implies. This is owing to the increased development of connective tissue. The part becomes dry, pale and hard, and, of necessity, the function, the secretion, etc., of the mucous membrane is seriously interfered with and finally completely abolished. The nasal orifices become encroached upon by the growth, and breathing through the nostrils is impeded. These patients usually snore intensely. With extension of the disease to involve the larynx, the voice becomes modified and assumes a nasal twang. The Eustachian tube is sometimes invaded, and the disease may find its way through to the external auditory meatus. Sometimes large erosions form and perforation of the part affected takes place. The course of this disease is exceedingly *chronic*. It lasts, in individual instances, for ten to twenty years. Three cases were under treatment continuously during my stay in Kaposi's clinic, and I saw several additional cases in Prague. One of the former was that of a woman, who had had the disease for a long time, and it had extended from the nostrils to involve the posterior nares and the upper part of the larynx. Her voice had changed considerably. She had become quite hoarse. The tissues presented a

very pale, sclerotic appearance, much resembling scar tissue. The membrane of the nostrils had become as firm as cartilage. The diagnosis of this disease can usually be made on sight. Very little is accomplished by treatment, as a rule. Pyrogallic and 1 per cent. sublimate lanolin ointment have, in some instances, proved effective.

The cause of rhinoscleroma is now quite firmly established. A bacillus was first discovered in the newly-formed tubercles of this disease, by Fritch, in 1882. His observations have since been corroborated by a number of bacteriologists. Paltauf was able to demonstrate the presence of the germ in a series of seventeen cases studied, and, in 1886, he, as well as von Viselsberg, obtained *pure* cultures of it. This organism is a short thick bacillus with rounded ends, and is enveloped in a gelatinous membrane much resembling the capsule of Friedlander's bacillus. It is erobic, non-motile, non-liquifying, stains readily with the aniline dyes and may also be stained in the tissues. Its growth upon agar and gelatin much resembles the Friedlander bacillus, with which it is thought by many to be closely related. Inoculated into mice and guinea pigs, the bacillus proves pathogenic, although the typical pictures of rhinoscleroma have not thus been produced.

A very exceptional case of ichthyosis hystrix was seen in a child, four years of age, in which the body and extremities were completely covered with veritable spines of horny growth. Most of such cases, I believe, are congenital, and we have the one instance in which a whole family, composed of several members, were affected with this disease. They traveled over all Europe, at the beginning of the present century, as objects of curiosity, and were known as the porcupine men. The name of this family was Lambert. The individuals actually resembled porcupines, as did the child to which I here refer. The epidermal accumulations upon these patients sometimes reach the height of a centimeter, and may be still larger. Extensive desquamation is usually in progress, and the bed in which the patient lies is found covered with scales and broken-off masses of horny substance. Usually, the skin becomes intensely pigmented, so that the appearance of the individual is very striking and characteristic.

I desire next to record a most peculiar and unusual case of psoriasis, which I had the opportunity of seeing in Pick's clinic, and the character of which I do not think is duplicated. The anomaly, so to speak, of this case consisted in the formation of

tumors, varying from the size of an almond to that of a walnut, scattered irregularly over the surface, and corresponding with what in ordinary cases are the flat patches of psoriasis. The pathology of the process must have been essentially the same as that of ordinary psoriasis. The usual overgrowth of the interpapillary zones of the rete and the corresponding increase in the length of the papillary portion of the corium which separates them, was simply carried to an extreme degree, resulting in the formation of the large growths which I have described.

Further proof of the case being psoriasis in nature was the therapeutic. The firm papillary enlargements upon the surface subsided promptly under arsenic. Continuance of this remedy in full doses finally led to complete recovery.

With the vast amount of material which is present in Kaposi's wards, the various changes in the clinical course and morbid anatomy of psoriasis may be studied amply. The diffuse and universal eruptions and the punctate, psoriasis figurata, guttata et gyrata, psoriasis annularis, etc., are here seen beautifully illustrated. In no instance, however, have I observed anything that even simulated this case which presented the large tumor formations.

The preferred treatment in psoriasis, as regards the local application, at the time when I was with Kaposi, consisted in the use of gallacetophenone, a derivative of pryogallol, which appears in form of a yellowish crystalline powder, that is soluble in hot water, alcohol, ether and glycerine. This remedy is applied in 10 per cent. solution and repeated every few days. It is penciled over the affected areas and confined to them. The patient's body, after such a treatment, appears very picturesque ; he is spotted somewhat like a leopard. The yellowish areas of varying size stand out in striking contrast to the remainder of the unaffected cutaneous surface.

The number of cases of lupus which were under treatment daily in the clinic over a period of several months, averaged about thirty. By no means all of these were confined to the face. In several instances the hands and other parts of the body were the seat of disease. Three cases of complete destruction of the nose, the result of recurrent lupus vulgaris, were in the hospital. A fresh case, coming under Prof. Kaposi's observation, is immediately scraped to the very depths of the infiltration with a sharp spoon curette. Cocaine is injected sometimes, but, as a rule, the time for this luxury to the patient is not taken, and then the indi-

vidual has to suffer. After all of the diseased tissue is removed, pyragallol salve, or some other cauterizing agent, is applied, and the part dressed with simple ointment until recovery. As a rule, after this radical treatment, more or less scarring takes place. When a new area happens to start up it is subjected to the same course of treatment, being first thoroughly *scraped.*

In contrast to this procedure for lupus, interesting results from the use of tuberculin, under Prof. Pick, in Prague, may be seen. This is his universal treatment, and uniformly recovery takes place. The injection of about 1-130 of a grain is followed in twenty-four hours by the characteristic reaction, and, in this instance, it can be plainly seen to occur at the location of the disease. A breaking down and gradual extrusion of the tubercular tissue takes place, and then the part heals by granulation. The tubercle bacilli are more readily found in the affected tissue after an injection of the lymph, the tubercular process having been lighted up. At other times, as one who has tried it can attest, the preparation of a vast number of sections is often necessary to demonstrate the presence of the tubercle bacillus in lupus tissue. Again, it may be a comparatively easy task.

As somewhat allied in the character of their etiology to the disease now under consideration, I might refer to two cases of leprosy, which were under treatment in the wards of one of the clinics in Vienna at the time that I was there. These cases were represented in two girls, who came from the Island of Java and were sisters. Their ages were seventeen and twenty respectively. They had been affected with the disease for some time, just how long I cannot state. Their cases were of the *anesthetic* type. The principal objective symptom was marked and extensive pigmentation (dark) of the affected areas of the body and extremities. There were no necroses and ulcerations with dropping off of phalangeal members, like we read about, and, to illustrate the non-transmissibility of leprosy under most circumstances, these two cases were allowed to live in the ward and associate with the twenty or thirty other patients. Few, if any, of the latter knew that those two had the disease from which they were suffering. None of the other patients acquired it during the six months which followed the arrival of the lepers. The latter were treated with arsenic, continued to improve, and were doing well when I left Vienna.

The disease prurigo, so common in Vienna, and which I con-

sidered of particular interest, owing to the discussion which exists in regard to it, a case of frœmbesia syphilitica, several cases of lupus erythematoides, and a certain other case of interest, I hope to treat further, under the head of this paper, at some future time.

469 Delaware Avenue.

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## HYPERTROPHY OF THE FOLLICULAR GLANDS AT THE BASE OF THE TONGUE.

By HORACE CLARK, M. D., of Buffalo.

Clinical study of disease of the glands at the base of the tongue is of comparatively recent date, although attention was called to the subject as early as 1877. The general observer has not yet given it the attention which its importance merits. A moderate degree of hypertrophy of these glands being commonly found without attendant symptoms, a more pronounced enlargement escapes attention, and search is apt to be made elsewhere for an explanation of the symptoms incident thereto. The importance of accurate examination of this region cannot be overestimated when the clinical history is such as will be described later on in this paper.

The presence of follicular glands at the base of the tongue is normal and constant in adults. Their aggregation into the so-called *lingual tonsil* is analogous to that between the pillars of the fauces forming the *faucial*, and in the vault of the pharynx the *pharyngeal* tonsil. At the base of the tongue, however, the glands are not aggregated into large thick masses, but are seen as little rounded cushion-like elevations, irregularly arranged, with smooth areas interspersed. They are most numerous in the neighborhood of the papilla circumvalata, where they seem to form true papilla, extending backwards to the glosso-epiglottic sinuses and to the right and left toward the faucial tonsils. In the middle of each gland is a slight hollowing out, which is the orifice of an excretory sinus, leading to a pouch-like cavity which is lined by a prolongation of the mucous membrane from the orifice. Underneath this lie the lymph bodies embedded in a fine reticulum, the whole mucous gland being enclosed in a fibrous capsule. There are from thirty-two to one hundred and four of them. Their average size amounts to from one to five mm.

Hypertrophy of the follicular glands of the tongue is due, in general, to the same causes as that of the same sort of tissue in other parts of the upper respiratory tract. The fact that there is a continuity of lymphatic tissue, in the form of a ring, between the lingual, faucial and pharyngeal tonsils, would suggest a ready means of communication of disease from one to the other. That there may be a connection between this disease and such acute diseases as scarlet fever, measles, diphtheria and typhoid fever, is supported more from the results of *post mortem* examination than from clinical history. That these glands may be attacked by tuberculosis and become enormously enlarged, has been observed. The disease is one of adult life, or, at any rate, its symptoms do not manifest themselves until then. The youngest recorded case is sixteen years, the oldest fifty-seven years. It occurs more frequently in females. This may be due to the more pronounced nervous temperament among women. It is not frequent among the laboring classes. This is probably due to lack of accurate observation on the part of such patients, or, perhaps, to lack of careful examination on the part of the surgeon in the hurry of a public clinic. The course of the disease is that of a chronic inflammation. Instances of acute exacerbation are not commonly seen. The writer is strongly of the opinion that the location of these glands, predisposing them to irritation from food and drink, has some etiological value as to their hypertrophy. This observation is made from a number of clinical histories.

The symptoms occasioned by this condition depend almost wholly upon contact between the glands and the epiglottis, and the intensity of the symptoms is proportional to the extent of contact. The latter must be a variable quantity, because of the varying convexity of the tongue and the form and position of the epiglottis. The convexity may be very pronounced antero-posteriorly or transversely, or, the parts at the sides may be more convex than those in the middle. Thus there may be a very small amount of glandular hypertrophy, which, by reason of its situation, may call forth pronounced symptoms. Again, the epiglottis may be so far removed from contact as to produce no symptoms at all even in the presence of considerable hypertrophy.

The most characteristic, if not most frequent, symptom thus produced is that of a foreign body in the throat. The patient's description of this is very variable. He will often try to put his finger on a "lump" whose presence he is almost constantly aware

of, causing tickling and coughing, but which he cannot locate exactly. Or, he says there is a place in his throat which feels as if a small piece of a stick were lodged there. A circumscribed roughened area is often mentioned. Whatever the description, a tickling and irritation is nearly always noted, and an effort to get rid of the offending material by coughing or hawking. The more this effort is persisted in the more ineffectual it becomes. In markedly developed cases, vomiting may sometimes supervene. I have made one such observation in the case of an elderly man, whose symptoms were especially aggravated by food and drink. During or after meals his throat would become so irritable that violent attacks of coughing would be set up, ending frequently in vomiting. Increased annoyance after eating is not infrequently complained of. The explanation of this may be found in a hyperemic condition of the glands, caused by hot or highly seasoned food. Coughing is not attended with much expectoration in uncomplicated cases.

*A sense of pressure* in the throat is a symptom very commonly given. This is most noticeable after long-continued singing or speaking, and may result in what is described as "hollow-swallowing." This sensation is precisely the same as that when a particle of food remains upon the base of the tongue after food has been swallowed, but not completely. Or, after having falsely swallowed, the sensation remains as if something had stuck in the throat.

*Tiring and impaired clearness of the voice*, notably complained of by singers, is probably due in part to mechanical interference with the free movement of the epiglottis, or to a sense of stiffening of the base of the tongue, impeding the vocal passage, and making a "throaty" tone. Or, the explanation may be found in the constant rubbing between the epiglottis and these glands. The nerves of the epiglottis are irritated and the voice is reflexly affected.

Huskiness of the voice, giving rise to a desire to *clear the throat*, may be caused by over-abundant secretion upon the cords. This may be simply a coincidence due to some other coëxisting lesion, producing slight inflammation of the cords. In a former paper[1] I pointed out how this occurs, and that the hypersecretion attendant upon adenoids, for example, is swallowed and does not pass on into the larynx. In the case of hypertrophied lingual glands, however, I do not see why the secretion, consequent upon friction, which collects in the glosso-epiglottic sinuses, should not

1. *Buffalo Medical and Surgical Journal*, May, 1893.

mechanically find its way into the larynx ; or, similarly, the secretion of the glands themselves when they occupy these sinuses.

The following symptoms are also mentioned by several clinical observers : slight pain in the throat accompanied by a burning sensation ; a spreading of the sense of pressure toward the ears on swallowing, or along the esophagus, between the shoulders, to the entrance to the stomach, or into the larynx and trachea. The symptoms may be more annoying when there is cold in the head, constipation, or from hard manual labor, as lifting, etc. This is explained by increased blood pressure under these conditions. Finally, it should be borne in mind that the symptoms are influenced by the patient's general health, and that they are especially aggravated by anything tending to nervousness.

When the given subjective symptoms can be reasonably supposed to be traceable to hypertrophied glands at the base of the tongue, the laryngoscopic picture will be somewhat as follows : the surface of the tongue will be found more or less covered with excrescences, of rather soft consistency, varying in size from a small lead shot to a cherry pit, although they may be considerably larger. Some of these are isolated, or arranged in rows or irregular forms. Neighboring glands or groups of glands may have run together, the boundary between them being lost. Thus, here and there, a conglomerate, frequently cone-shaped mass, of irregular outline, is formed, overreaching the free border of the epiglottis and extending into the glosso-epiglottic sinuses. Cases are recorded in which the epiglottis was fairly imprisoned. The cords show slight inflammation.

In making the diagnosis, the point to be determined by examination is neither the number of these enlarged glands nor the size of the enlargement, but whether they are so situated as to come in contact with the epiglottis. As an aid to diagnosis I make a practice of touching with the probe both the glands and the epiglottis at the points of contact. Thus it often happens that the same sensation which the patient has complained of will be brought out. It has also been suggested to cocainize the part and observe whether the irritation is thus allayed.

It must be admitted that the above described relations may pertain and yet there need be no corresponding symptoms. The most that can be said is that when there are such symptoms and such a condition, the probability is that the trouble lies here, and is, therefore, to be attacked as the salient point, although there

may be lesions elsewhere which might give rise to a very similar set of symptoms.

In the treatment of this disease, results are claimed from repeated applications of a preparation of iodine, iodide of potassium and glycerine, as well as from the various caustic acids, London paste, etc. These methods are to be considered only when operation for the immediate removal of the tissue is refused. Neither is the galvano-cautery alone advisable. This, too, may require repeated use, and the patient suffers considerable discomfort between times. Furthermore, it is difficult to avoid touching the epiglottis with the cautery. The cold snare is advocated as the most efficient instrument. A curved canula should be used. A small guillotine has been devised, worked like a tonsillotome with the "Schroetter" handle. It is difficult to make the blade catch. Cutting instruments, such as curved scissors, are objected to because of possible hemorrhage. I do not think they should be discarded for this reason if their use is preferred. If hemorrhage is to occur at all it must come from enlarged veins, which, indeed, may cause a varix in this region. These can be seen sufficiently well to remove danger from them before-hand by their destruction with the galvano-cautery. The looped lanyngeal curette has given me by far the smoothest resulting surface. The tissue is soft and is readily scraped away in small lumps. Any remaining unevennesses may be now removed by the galvano-cautery with very little danger to the epiglottis, because sufficient free space has been obtained between it and the base of the tongue. The soreness upon swallowing after operation is not serious and does not seem to be increased by this searing. A thin slough is formed which usually separates within three or four days. The wound should be cleansed for a few days subsequent to operation. At the same time, applications of the *etherial* tincture of the chloride of iron will be found to have considerable value in relieving the soreness.

21 West North Street.

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Salicylate of sodium is recommended as little less than a specific in acute cases of tonsilitis. It should be given as early in the attack as possible, and in sufficient doses to cause ringing in the ears. Fifteen grains every three hours will usually cause this effect, when the dose may be diminished to ten, and then to five grains, at the same intervals. It should be continued for a day or two after disappearance of the fever.—*N. C. Medical Journal.*

# Translation.

## SARCOMA OF THE TONGUE TREATED WITH PYOKTANIN.

By DR. E. S. PERMAN.

Translated from *Hygiea* by L. G. SELLSTEDT, Esq.

Sarcoma of the tongue is an uncommon disease, which only within the last ten years has begun to be recognized. Butlin, in his *Krankheiten der Zunge*, Vienna, 1887, says that he has only known of three cases of it. The first was one in New York, of a child three years old, published by Jacobi in 1870. The second was one treated by Goddle, in which the tumor was situated at the back of the tongue, and had reappeared after excision, and where afterwards metastasis of the skin had taken place. In the third case, Butlin had only seen pieces of the excised parts, and which he on investigation found to be round cells or sarcoma of the tongue. (A number of cases here follow in illustration of the subsequent history of the disease, which for want of space are omitted.) Continuing, Dr. Perman says, Dr. Hakanson has kindly given me the following history of the case :

Mrs. V. F., 30 years of age, called on him the first time, December 17, 1892, and told him then that, some time in May or June of the same year, she had once or twice observed streaks of blood in the saliva and also some unpleasant feeling in the throat. She applied to Dr. Gibson, her family physician, who touched it with a solution of nitrate of silver, as he could only find some reddening (in cav. orale). Her general health was good and there was no difficulty in swallowing.

During the Summer all went well, and it was only in the middle of December that she noticed something unpleasant in the throat. She again consulted Dr. Gibson, who, after examination with mirror, discovered a swelling in the root of the tongue and sent her to Dr. Hakanson. She was permitted to make an intended journey into the country over Christmas, and returned in the early part of January, 1893, when Dr. Hakanson found the tumor somewhat increased in size.

The 14th of January, 1893, in company with Dr. Hakanson, I made my first examination. When the tongue was drawn out, we could just see a tumor protrude at the root of the tongue. By the

aid of a mirror the swollen mass was seen to be 1½ to 2 c. m. high and about as thick as the end of the little finger. The mucous membrane of its surface seemed to be raised and covered with mucus, not ulcerated. It hid the parts below, so that we could only perceive that the whole root of the tongue seemed to be elevated. It felt soft to the touch ; no induration in the surrounding tongue-tissue was felt.

The 17th of January, 1893, at the Sofia Home, a piece of the elevated tumor was removed with a galvano-caustic snare, by Dr. Hakanson, for microscopic examination. By the mirror examination it was seen that this only consisted of a part of a larger tumor, whose foundation involved the right half of the root of the tongue and over the median line, even reached a little way into the left half. It was uneven on the surface and seemed to be divided into smaller sections by incisions, of which the excised part constituted one of the most prominent. It seemed to be considerably elevated, 1½ to 2 c. m., over the level of the root of the tongue. The mucous membrane of it was not ulcerated. To the touch it felt as soft as its surroundings, nowhere fluctuating. Its lower margin seemed to extend almost as far as the epiglottis.

The general condition of the patient seemed to be good. In general she had no severe pain ; it only "felt unpleasant in the throat," besides which she was troubled with mucus in the throat. Latterly, however, she would often wake up at night, when the throat troubled her, and she had trouble to breathe. No difficulty in speaking nor in swallowing until lastly, when she was only able to take liquid food. There was no reason to suspect lues. Experimentally, large doses of iodide of potash were ordered, which she took for a week without result.

By examination on the 25th of January it was easy to perceive that the tumor had increased in size. The protruding mass of it seemed to be quite as big as a walnut and reached quite up against the back of the wall of the pharynx. The patient had had a mild degree of difficulty of breathing (probably from gathering of mucus in the throat).

The size of the tumor, its broad attachment with its, of late, rapid growth, spoke plainly for its malignant character. Carcinoma appears very seldom primarily in this part of the tongue ; the soft character of the tumor together with the absence of ulceration and absence of infiltration of the surroundings, spoke also against cancer. There was, therefore, greater reason to suspect that

here was a case of sarcoma. One disease which in such a case might lead to a faulty diagnosis is lues—namely, with an unbroken gumma. No other symptoms pointing to this disease were found, however, and as well as could be ascertained, none had ever appeared. The iodide of potassium treatment, which, however, was continued a short time, gave a negative result.

Meantime the diagnosis was soon settled by microscopical examination, the only way in such a case a certain diagnosis can be determined.

The excised piece was examined at the Pathological Investigation Bureau (by Dr. Vestbery), and the swelling ascertained to be a sarcoma.

When thus the microscopical investigation had exhibited the malignant character of the growth, there was, in case a bloody operation was determined on, nothing less severe to propose to the patient than the removal of the entire tongue clear up to the epiglottis. The position of the tumor rendered it impossible in any other way completely to remove the new growth and thus prevent its reappearance. But even after such an operation no one can with certainty predict that the disease may not return. The attempt must be regarded as dangerous to life, and lastly, the patient's condition after such an operation particularly grievous, especially for a patient who, like this one, has not been accustomed to deprivations and sufferings.

I would not even propose this operation to the patient, but spoke only of it to her husband. When he heard of the dangers of the operation, what was to be won by it, and what the condition of the patient in the most favorable event would be after it, he would not consent that it should be proposed to his wife.

When thus the case might be considered an inoperable one, I proposed as the only thing which might be tried with any promise of success the injections of pyoktanin. Before proceeding further I advised the patient and her husband to obtain the opinion of Dr. Berg also. The result of his examination in company with Dr. Hakanson and myself was that he also recommended the pyoktanin treatment.

A preparatory operation of tracheotomy was made the 28th of January at the Sofia Home, as there was reason to fear that the tumor and its surroundings would swell so much after each injection that it would cause hindrance to respiration, or that possibly an edema of the glottis might make its appearance.

The 2d of February the injections of pyoktanin commenced and were continued every other or every third day ; 1 to 2 grammes of the solution (1.500) was injected each time. The injections were made by the guidance of a mirror and with long and crooked syringe points, manufactured for the special purpose, and which were inserted about 1 c. m. from the attachment of the growth and carried obliquely into the tumor.

When the injections did not cause any considerable swelling of the root of the tongue or any glottis edema, the canula was removed a week and a half afterward.

On the 15th of February, after five injections, the tumor was seen to be diminished and as if more plainly peduncleated. By digital examination its attachment was felt to be incomparably smaller than at the first examinations. While at that time the tumor seemed to be elevated, with overreaching edges only in certain places of an attachment nearly as broad as the circumference of the tumor, it is now felt to be plainly peduncleated, like a mushroom, which can be bent over to all sides upon a small stem.

On the 18th of February, after six injections, Dr. Hakanson made an excision of the elevated part of the tumor with a galvano-caustic snare. The tumor was the size of half a walnut, the stem scarcely 1 c. m. in diameter. The tumor divided into three lobes; in its frontal part, yellow ; gray on the outside ; at the back more reddish, as if transparent. Even now a pathological microscopic investigation was made at the Investigation Bureau, which justified the diagnosis.

On March 18th, the second day after the foregoing excision, a smaller mass, about the size of a coffee bean, had shot up from the left part of the tumor. This has gradually increased till it is now half as large as the one of the 18th of February. The patient has now had in all eighteen injections. Excision with galvano-caustic snare. The transverse section of the peduncle was smaller than that of the 18th of February. The following day, the 19th, the attachment of the stem was cauterized with a galvano-caustic burner. During the two following days the patient suffered slight pain in the left side of the tongue and the throat. Afterward the injections of pyoktanin were continued, of which thirty-one altogether were given, till the 26th of April, 1893, during the last part of the time with five or six days' interval. After the 18th of March there was no appearance of any further growth of the tumor, but the base of the tongue seemed for a while to be swollen.

I examined the patient last on the 6th of February, 1894, and there was no appearance of relapse. She has been well the whole time, without any feeling from her former trouble. She finds herself continuing well, without sign of the return of the disease, at the end of April, when this was printed.

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# Selection.

## REVIVAL OF SYMPHYSEOTOMY.

By W. J. SINCLAIR, M. D., Manchester, Eng.

The literature of this subject has in recent years become so voluminous that it would be impossible to find space to do more than summarize the accounts of the most striking work done in Italy, France and Germany, where the operation has been most frequently performed, and has found the most prominent supporters.

*Historical.*—The operation was first proposed by Sigault, of Dijon, in 1768, and first performed at Naples by Domenico Ferrara in 1774. Ever since then there have been champions of the operation in Naples,[1] notably Amantea and Galbiati, and in more recent times Spinelli, Caruso and Morisani. The last of these called attention to his operative work for the first time in 1863, and his contribution of facts and opinions on symphyseotomy was perhaps the most remarkable feature of the Gynecological Section's Proceedings at the recent Congress at Rome. Throughout the rest of Europe the operation was entirely abandoned as too dangerous. This result was largely owing to the discussion which took place between Sigault and Baudelocque. In this discussion Baudelocque appeared to bring forward unanswerable arguments drawn from his experiments upon the cadaver, especially proving the absence of increase in the conjugata vera and the occurrence of fracture of the sacro-iliac joints as results of the operation; and though his conclusions were shown later to be erroneous, they were accepted at the time. It was not until great advances had been made towards exact pelvimetry, and antiseptics had been introduced into obstetric surgery, that the results obtained by the Italians were sufficiently encouraging to attract favorable attention in France and Germany, and, curiously enough, it was at the

1. Corradi. History of Obstetrics in Italy during the 18th Century.

Clinique Baudelocque in Paris that the most strenuous advocates of symphyseotomy were found.

*Symphyseotomy in Germany.*—The Transactions of the German Gynecological Society at its meeting at Breslau in May, 1893, will perhaps best serve as the basis of a review of the German material up to that date.

Zweifel, of Leipzig, gave an account of his experience, referring to previous papers of his own and of others on the same subject, and frankly admitting that his opinion on the subject had undergone a complete change. He mentioned fourteen cases of symphyseotomy occurring in his clinic. All the fourteen women recovered completely, without any unfitness for exertion. Two of the children were stillborn, or died immediately after birth. He found it impracticable to follow the example of the Neapolitan school, and wait for spontaneous delivery after the cutting portion of the operation. He had to apply the forceps in ten of the cases, but always with the head low in the pelvis. The weakening of the fetal heart-sounds was in every case the indication for the use of the forceps, and in six of the cases coiling of the cord round the neck of the fetus was found to be the explanation of the indications.

As to the *technique* of the operation, Zweifel calls attention to the following details. The incision through the skin gives rise to smart hemorrhage, which can be readily stopped. The introduction of the finger behind the symphysis and the protection of the knife in cutting through the cartilage from above downwards are easily effected. Only in one case had he to use the chain-saw, owing to difficulty in completing the incision through the symphysis. Difficulties may arise here, not from ossification, but from obliquity in the direction of the symphysis or irregularity in the form of the pubic bones. When the cartilage is cut through, the pubic bones separate about a quarter of an inch, and when the last fibers of the ligamentum arcuatum give way, the distance between the bones amounts to a finger's breadth. Then comes on very considerable hemorrhage, which is difficult to stop. It is best arrested by the introduction of a tampon with counter-pressure from the vagina. When this has been done, the patient may be put back to bed and labor allowed to proceed for twelve or fourteen hours. In many cases the os is not fully dilated, although the membranes may have ruptured at the time of the incision. When the head is passing through the narrow portion of the pelvis, the pubic bones

sometimes separate to the extent of $2\frac{1}{2}$ to $2\frac{3}{4}$ inches. In such cases there is always fresh hemorrhage and the need for additional *tamponnade* to arrest it.

After the completion of parturition, another set of circumstances demand attention. Zweifel says that the old accoucheurs used to fix a serviette round the pelvis, and healing took place. He himself had to resort to suture of the bones in eleven cases. He describes the difficulties in the way. He used silver wire and it cut through; he separated the periosteum with a raspatory, and took a larger hold of the bone; and he finally succeeded in bringing the separated surfaces of the symphysis together. He says this proceeding is not difficult, but recommends that it should not be attempted in private practice. It may be sufficient to follow the Italian method of suturing the fascia, and so turning in the feet when the legs are extended as to diminish dragging upon the symphysis. In order to keep the pelvis still and immovable, a special girdle was used at first, but in later cases strips of plaster fixed round the pelvis were found to be as efficient and more comfortable. In three cases in which silver wire was used, incontinence of urine came on, and required treatment later. In Zweifel's cases the ability to walk soon returned. There was a slight increase in every case in the transverse diameter of the pelvis.

The puerperium was favorable throughout in only three of the cases, and five of the number were ill, with high temperature, for a long time.

Attention is called to the extensive lacerations of the maternal soft parts, which may be as serious as the injuries to the sacro-iliac joint. Such lacerations occurred in Zweifel's cases once spontaneously and three times during forceps delivery. Three of the women were primiparæ. Later experience has led many operators to the conclusion that symphyseotomy should not be performed upon any woman during her first labor.

At the same congress Döderlein, also of Leipzig, described and illustrated his observations on certain questions bearing on the operation. He set himself, first, to answer the question, What is the condition of the sacro-iliac synchondrosis when the pubic bones are separated during the operation? The second question to be answered was, Is the amount of room in the pelvis gained by the operation a sufficient advantage to place against the dangers and difficulties of the operation? On the first head he found, contrary to the accepted traditional views of Baudelocque, that in the

pregnant woman at full term the sacro-iliac joint does not fracture; there is only a partial tearing of the capsule of the joint and especially of the anterior sacro-iliac ligament. The joint is opened and the fluid in the joint escapes; if small vessels are torn there may even be an extravasation of blood into the joint. As soon, however, as the pelvis is restored to its proper shape on the completion of labor, the injuries are quickly and completely healed if no infection has occurred. On the question of increased space in the pelvis Döderlein proved by experiment that when the pubic bones were separated six centimeters, there was an increase in the inlet equivalent to fifty square centimeters, and when the symphysis was separated eight centimeters there was an increased area of the inlet equivalent to sixty-six square centimeters.

Leopold, of Dresden, had performed the operation four times. He thought it was not an operation for general practice, and was not likely to become so. The upper limit for the conjugata vera is 8cm. ($3\frac{1}{8}$in.), and the lower limit 6cm. ($2\frac{3}{8}$in.) Labor should be allowed to proceed until the os is completely dilated, and then the whole process should be completed at once by the application of the forceps. The greatest possible care must be exercised to prevent laceration of the vagina. Primiparæ should never be subjected to the operation.

The discussion was continued by Chrobak and Schauta, of Vienna; Olshausen, of Berlin; Fehling, of Basel; and others who had done the operation very seldom or not at all. It brought out differences of opinion on various points, such as the relative danger of injuries to the bones and to the soft parts, the need for suture of the bony parts (Knochen-naht), the relative frequency of pyrexia and symptoms of sepsis after operation, and to what extent symphyseotomy would do away with the necessity for perforation of the living fetus.

Such was the state of information and opinion among German obstetricians little more than a year ago.

In the discussion on symphyseotomy, which took place at the International Medical Congress in March last, Leopold and Zweifel among others took part, and the former said that it was his duty to explain the position in the controversy occupied by German obstetricians. He and his colleagues, however, brought out the fact that they had not in any way changed their views on controverted points. Leopold still spoke in favor of premature labor practised not earlier than the thirty-fourth week, and Zweifel advo-

cated, as formerly, delay after the cutting portion of the operation, so as to avoid the application of the forceps. His cases had now increased to twenty-three, all the mothers were alive, and twenty-one of the children. There had been no incontinence of urine, no fistula, no serious puerperal affection, but in three of the women walking continued for a long time to be difficult.

Sänger, of Leipzig, joined in the discussion to compare the operation with Cesarean section. He said his mortality for twelve cases was *nil.* In general the mortality of the two operations differs little. If we compare the time occupied by the two operations, we find that Cesarean section takes about an hour, and requires no after-treatment, whereas symphyseotomy, according to Zweifel's method, demands about a day, and the after-treatment continues for about a year. Symphyseotomy, in Sänger's opinion, ought to be more limited in scope, and that of the Cesarean operation extended.

*Symphyseotomy in France.*—The revival of symphyseotomy in France chiefly depends upon the clinical work of Pinard. This clinical work is explained and justified by the anatomical and experimental studies of Professor Farabeuf[1] and of Dr. Varnier.

Up to the time of delivering his address on symphyseotomy, at Rome, in March last, Pinard had performed the operation thirty-six times, with the result that two mothers and four children died. No accident had occurred in any case during the incision of the symphysis and enlargement of the pelvis. Hemorrhage had always been stopped by using a sponge as tampon. During the extraction of the fetus in primiparæ, laceration of the anterior vaginal wall occurred five times. The tears were not extensive, and gave rise to little trouble. The practice of preliminary dilatation by means of Champetier's bag rendered laceration a rare occurrence. Incontinence of urine continued for a considerable time in one case. In all the cases consolidation of pelvis was complete by about the twentieth day. The after-history, in a considerable number of the cases, showed that the women were engaged at laborious occupations, and did not suffer in any way. One of the women became pregnant about three months after undergoing the operation, and went through normal spontaneous parturition at full term in the *clinique.*

1. Possibilité et moyens de traiter scientifiquement la dystocie du détroit supérieur retréci. *Annales de Gynécologie*, May-June, 1894.

Pinard gives a table showing a comparison between the results obtained in cases of contracted pelvis by the induction of premature labor and by symphyseotomy. In sixty-four cases of the former, two mothers and thirty children were lost, whereas in thirty-six of the latter, two mothers and four children were lost. The author proceeds to give a *résumé* of the anatomical and experimental researches of Farnbeuf. He begins with the remark, "*Ces notions anatomiques sont ennuyeuses.*" With this opinion most readers will agree. The summary itself is long, and incapable of further condensation. Pinard then gives a carefully-detailed and illustrated account of his method of operating. He "indicates the method by which the difficulties and dangers of the operative proceedings are to be suppressed."

He finally formulates his conclusions as follows:

1. Symphyseotomy or pubiotomy performed antiseptically is not a dangerous operation.

2. In order to be useful it ought to be complete, and the preliminary separation of the pubic bones ought to be in proportion to the contraction of the pelvis.

3. The operation should be performed only on those cases in which examination and measurement of the pelvis show that separation of the pubic bones to the extent of $2\frac{3}{4}$ inches will permit the passage of the fetal head at term.

4. Separation of the pubic bones exceeding $2\frac{3}{4}$ inches, being capable of producing lesions of the soft parts, should be proscribed.

5. When the contraction of the pelvis is such that separation of the pubic bones to the extent of $2\frac{3}{4}$ inches will not permit of the passage of the head of the fetus, recourse should be had to Cesarean section (Porro's operation).

6. In case of oblique ovular pelvis, with synostosis of one of the sacro-iliac articulations, when the contraction does not permit of spontaneous delivery, it is best to perform the operation of Farabeuf, that is, ischio-pubiotomy.

He adds the following "general conclusions":

1. Embryotomy, cephalotripsy, and waiting for the death of the fetus ought to be forever proscribed.

2. Operative enlargement of the pelvis, conducted according to the rules laid down, ought to lead to the abandonment of (*a*) the induction of premature labor; and (*b*) every operative proceeding having for its object to make the fetal head struggle against

osseous resistance which cannot be overcome by the uterine contractions.

*Symphyseotomy in Italy.*—The work of the German and French obstetricians in symphyseotomy is a mere reflection of that done in Italy, and more especially of the work of Morisani, of Naples. Morisani's first publication, On the Contractions of the Pelvis and the Indications which Appear at the Time of Parturition, attracted considerable attention to symphyseotomy. It appeared in 1863, and since then numerous papers have conveyed to the medical profession a knowledge of his clinical work and of his opinions. He has also been aided in his advocacy by able colleagues and disciples, who have been active clinical workers and diligent contributors to the literature of the subject. One of the most useful of these contributions was that of Spinelli, *Sulla Sinfisiotomia, Annotazioni Storiche, Critiche e Bibliografiche*, which ran through several numbers of the *Annali di Ostetricia e Ginecologia* in 1892. Among the numerous addresses and papers of Morisani, one of the most important was a contribution to the same journal in January, 1893, *Per la Sinfisiotomia*, in which he gave the statistics and details of fifty-five cases. And now, quite recently, at the International Congress, his address on Symphyseotomy placed before the profession his most mature experience and reflections.

Symphyseotomy is now rendered a justifiable operation by our clinical experience. We are enabled by it to extract a well-developed child at term through a contracted pelvis with a conjugate diameter of 6.7 cm. to 8.8 cm. ($2\frac{5}{8}$ to $3\frac{1}{2}$ inches). The operation is contra-indicated when the fetus is dead, or even very feeble. The time for operation is when the pains are in full force and the dilatation of the os is well advanced. If it be objected that with an antero-posterior diameter of $3\frac{3}{8}$ inches spontaneous birth is possible, or the forceps may readily complete the parturition, it may be answered that a favorable termination is only exceptional, and that the use of the forceps in such circumstances is "masked cephalotripsy," with this difference, that the ordinary cephalotribe would produce less grave and dangerous injuries to the maternal parts. This conviction, however, should not lead to rash action; in every doubtful case plenty of time should be allowed to the natural forces, and the forceps even may be cautiously tried before resorting to symphyseotomy.

In the employment of version in cases of moderate contraction,

Morisani has no confidence. The mortality among the children is enormous; Zweifel puts it at 29 per cent.

Two or three combinations of other operations with symphyseotomy are discussed; the combination with induction of premature labor is rejected; the combination with embryotomy in certain rare cases is considered advantageous.

The operative details are easy of execution, and do not involve any danger to the patient worth mentioning. The curved bistoury of Galbiati is not essential. Any knife with a protected point and a narrow, strong blade will do. Morisani has never met with ossification of the symphysis, but admits that a chain saw may be required when there is great obliquity and irregularity of the symphysis. It is essential that the accoucheur ascertain that the subpubic ligament is completely divided, and that all the structures of the joint are so cut as not to interfere with the separation of the surfaces. When the thighs are abducted, the separation should extend at once to 4 or 5 cm., and in some cases even to 6 or 7 cm. As soon as this separation has taken place Morisani applies the forceps and completes the labor. He justifies this course as against Zweifel's advocacy of delay. When the labor is over, the wound is at once closed with silk sutures, which are applied as both deep and superficial. Osseous suture is shown by Morisani's statistics to be unnecessary. He has also given up special appliances for holding the pelvis immovable. Simply bandaging and tying the knees together suffice for obtaining a perfect cure.

Hemorrhage has never been a troublesome feature in Morisani's operation. *Tamponnement* of the wound has always been sufficient to arrest it. The lacerations of the anterior vaginal wall, spoken of by some, have figured little in the practice of the operators at Naples. They might be altogether avoided if primiparæ were not operated on, and if the innominate bones were pushed together towards the end of the extraction so as to support the soft parts.

In comparing symphyseotomy with other operations, Morisani thinks that it does not come into competition with Cesarean section, inasmuch as one begins where the other leaves off. With a conjugate diameter of less than 6.7 cm., the Cesarean operation "conserves its rights." He deprecates the resort to abdominal section, with its mortality of 12 per cent., in cases where symphyseotomy should give a favorable result.

As to craniotomy on the living child, the maternal mortality is

appreciable, and the balance of advantage lies with symphyseotomy. As to the advantages of induction of premature labor, Morisani has changed his mind. If the deformity of the pelvis be such as to require, for the birth of a living child, induction at the end of the seventh month, or in the course of the eighth, then symphyseotomy should be resorted to. The results of induction so early are "deplorable." "The great majority of the children die," in spite of all the appliances to keep them alive.

The statistics of symphyseotomy appear to require careful handling. The number of cases collected from various sources is 241, showing a maternal mortality of 11.6 per cent. Some of the deaths were due to causes unconnected with the operation. The result of the 241 operations, as far as the fetus was concerned, was 186 living children and 55 deaths. Of these deaths it is sought to explain away 25.

Morisani's own results, as published in January, 1893, in the paper already referred to, show 55 cases in the five years from March, 1887, with two mothers and five children lost, a very remarkable maternal mortality for such an operation.

Morisani's final summary does not contain any fresh point, except, perhaps, his insistence upon the disastrous results of operating upon women with pelves contracted beyond the minimum of 6.7 cm. of conjugate diameter.—*Medical Chronicle*, Sept., 1894.

## Therapeutic Notes.

### METRIC PRESCRIPTIONS.

(ADAPTED FROM VARIOUS SOURCES.)

By A. L. BENEDICT, M. D.

SUB-ACUTE CYSTITIS, WITH ALKALINE URINE.

| | |
|---|---|
| ℞.—Ext. hyoscyami, fl. | 4.00 |
| Sodii benzoatis | 30.00 |
| Syr. sars. co. | 30.00 |
| Aquam ad. | 100.00 |

S. Shake. 5 c. c. A. C. (Teaspoonful before eating.)

ANTIEMETIC IN PERITONITIS, ETC.

| | |
|---|---|
| ℞.—Chloralis | 1.00 |
| Vini ipecacuanhæ | 1.00 |
| Aquam ad. | 100.00 |

S. 5 c. c., every five minutes, p. r. n.

### DIABETES.

℞.—Codeinæ..... .03
Ext. ergotæ ..... .05
Ext. belladonnæ ..... .01

S. In pill, t. i. d.

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### CHOLAGOGUE.

℞.—Ammonii chlor..... 15.00
Ac. hydrochlor., dil..... 20.00
Syr. limonis ..... 20.00
Aquam ad. .....100.00

S. 5 c. c. P. C. in hepatic torpor.

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### INFANTILE CONVULSIONS.

℞.—Chloralis ..... .05
Potassii brom..... .25
Mucil. acaciæ ad... ..... 15.00

S. Use as enema. Repeat in half to one hour, if necessary.

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### BLEEDING HEMORRHOIDS.

℞.—Ung. gallæ.
Ung. hydrarg. ammon.....aa 15.00

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### MODIFIED DOBELL'S SOLUTION.

℞.—Sodii bicarb..... 10.00
Sodii (quadre) boratis..... 10.00
Potassii chloratis..... 25.00
Ac. carbolici ..... 2.50
Glycerini..... 50.00
Aquam ad.....100.00

S. Dilute to 500 c. c. (about one pint). Look out for effervescence.

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### ALCOHOLISM.

(From prescription written by a patient who was himself a physician.)

℞.—Sodii brom..... ..... 20.00
Tr. capsici ..... 15.00
Spts. ammoniæ arom..... 30.00
Tr. belladonnæ ..... 2.00
Aquam ad.....150.00

S. 15 c. c. (tablespoonful), p. r. n. Repeat, with caution.

# Correspondence.

## PHILADELPHIA LETTER.

[*Special correspondence of the Buffalo Medical and Surgical Journal.*]

*Has Philadelphia Immoral Massage Establishments?—A New Medical Journal Announced on a Unique Plan—Improvements at the Jefferson Hospital—Report of the Pennsylvania Hospital and the Nativity of its Inmates—Statistics of the Insane Department—The Pennsylvania Hospital and Grounds—Nurses' Home at the Blockley Hospital—Hospital of the Medico-Chirurgical College Partially Rebuilt.*

The feminine portion of those who advertise in the newspapers as competent to give massage treatment has recently received a blow in this city, from which recovery will not be very rapid, and a masseuse, unless she is recommended by a physician, is apt to be looked upon with suspicion. It had been noticed for some time that a series of rather striking advertisements appeared in the daily papers, for instance: A Spanish lady gives massage treatment; Massage and bath given by a young widow and assistants; Bath and massage in a first-class house by lady attendants; and so forth—a long list. Of course, everything is pure to the pure, but doctors and newspaper men have often demonstrated the fallacy of this convenient old proverb, and a reporter made the rounds of six of these massage establishments, with the result that the police made a very undignified entrance into these "parlors" the next day and arrested and fined the "attendants" as keepers of disorderly houses. And yet some call Philadelphia *slow!*

There are about twenty weekly and monthly medical journals edited and published in Philadelphia, but, to satisfy a "long-felt want," another monthly is to make its appearance soon, and it is to be run on a new plan. Every contributor must be a subscriber and every subscriber must be a contributor; and each subscriber is expected to furnish from one to three articles annually for publication and each article is to be limited to 400 or 500 words. Certainly new lines these, but the newest, probably, is that this journal-that-is-to-be needs only 200 subscribers, at $3.00 per annum, to guarantee all running expenses of publishing thirty original articles each month, illustrated, if necessary, by photo-engravings. The journal is to be very select and not in any way influenced by

commercial or manufacturing concerns. A publication of that kind, with so many novel features, *ought* to succeed, and when it is in good running order I hope the Buffalo MEDICAL AND SURGICAL JOURNAL will send a representative down here to learn how an *independent* journal with *200 subscribers*, and what little advertising it can get with such a limited circulation, can live and pay its running expenses. Such remarkable financiering should not be hidden under a bushel.

The Jefferson Hospital has been thoroughly overhauled during the past Summer, disinfected, and its sanitary arrangements are now said to be perfect. It needed it badly, but its dingy, cheerless interior is now as pleasant and cherful as any modern hospital can be. Since June it has held no patients and only one room had been reserved for emergency cases; all the others had been given over to plumbers, painters and carpenters, and next year's report of the hospital will, no doubt, show the good effect of this Summer's work in the decreased mortality of the patients.

Hospital reports are usually dry reading for the average medical man; but once in a while we strike an item that seems to furnish food for thought to all. For instance, the report of the Pennsylvania Hospital gives a table exhibiting the number and nativity of patients received during ten years, as follows:

| | United States. | Ireland. | Russia. | Other Countries. |
|---|---|---|---|---|
| 1885 | 921 | 593 | 13 | 574 |
| 1886 | 973 | 543 | 18 | 590 |
| 1887 | 1,002 | 595 | 28 | 654 |
| 1888 | 1,085 | 555 | 41 | 684 |
| 1889 | 1,032 | 477 | 79 | 613 |
| 1890 | 1,059 | 432 | 83 | 651 |
| 1891 | 1,087 | 429 | 113 | 667 |
| 1892 | 924 | 339 | 166 | 580 |
| 1893 | 1,028 | 359 | 203 | 550 |
| 1894 | 1,012 | 325 | 251 | 621 |

Note how nearly constant is the number of native patients, as well as those from all other countries and the tremendous *increase* of sick Russians and the *remarkable* decrease of sick Irishmen. We may explain the Russian figures by the largely increased immigration from that country, but the changes in the immigration from Ireland will not explain the steady decrease in the number of sick Irishmen, and the question may be asked: Has the Irishman's

health improved in a general way, or is he learning to take better care of himself when in this country? It cannot be a question of fees and money, because the hospital is practically a free institution and had during the past year an income from endowments amounting to about $375,000, while the income derived from fees of patients was only $3,000.

In a similar way the insane department of the hospital has a few very interesting items in the report. Since the formation of this department, in 1841, there have been received 10,562 patients. Of this number were by birth: Irish, 1,246; German, 578; English, 97; Scotch, 68; French, 31; Cuba, 22; and Russia only 2. With a few odd exceptions, the rest were Americans. Now, the immigration from Ireland and Germany has not differed so very much in numbers, and yet the insanity in the former is more than double that of the latter, while Russia, with its large sick list, furnishes only *two* for the insane department. It cannot be the difference between whisky and beer, because, among the whole list of 10,562 patients, only 975 are reported as insane on account of intemperance; certainly somebody with a statistical turn of mind could write a very interesting dissertation on this subject.

We of today are apt to flatter ourselves that we know all about hospital building, but the Pennsylvania Hospital, although built on its present site in 1751, shows a few points well worth applying to our up-to-date buildings. Of course, when started, it was well out of the city, and the lands surrounding the hospital were its property and used as pasture and farm lands. As the city grew, these lands were demanded for building lots, and in the early part of this century they were placed on the market. The hospital and grounds now occupy one block, but all the four surrounding blocks have been built up under very strict and stringent regulations advocated by Benjamin Franklin, who was on the board of managers. The buildings are limited to certain heighths, and, again, some of the houses have large yards or gardens on which they are *not* allowed to build at all! These "open spaces" are found on all four sides of the hospital, and ensure a better circulation of air than could have been obtained if the grounds had been surrounded by high buildings without a break excepting the street crossings. With the hot Summer here and the humid atmosphere, narrow streets and almost total absence of wind, these building regulations

must inspire the visitor with admiration for the sanitary wisdom thus exhibited almost a century ago.

The Blockley Hospital is erecting a nurses' home, at a cost of $35,000. It will have accommodations for 120 nurses, and will be as perfect in its appointments as modern science can make it.

The hospital of the Medico-Chirurgical College has been partially rebuilt, and will, when completed, hold 180 beds and fifty private rooms. J. P.

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## MULTIPLE PAPILLOMES OF THE LARYNX.

*Editor Buffalo Medical and Surgical Journal:*

Being employed in preparing a paper on the treatment of multiple papillomes of the larynx in children, I observe that the opinions regarding the methods usually adopted are very much at variance. Certainly one must differentiate here as elsewhere; neither can we, or dare we, treat all cases in the same manner. There is no unanimity of opinion as to whether it is better to operate or to treat the cases otherwise.

It would be of great value to obtain the opinion of the majority of laryngologists on this subject; hence, for the purpose of collecting statistics, I beg all who have experience to furnish me with full details of their cases as follows:

1. Age and sex of child; occupation of father.
2. Symptoms, (hoarseness, dyspnea, etc.,) laryngoscopical image.
3. Manner and date of operation.
4. Result of operation as regards voice and breathing. Death—cause? Relapse—when? Recovery—date of the last examination.
5. Have these cases already been published? If so, when and where?

All gentlemen who will aid me in this matter have my best thanks in advance for their kind coöperation.

DR. A. ROSENBERG,
First Assistant of the Polyclinic of the University for Throat and Nose, Berlin, N. W.

MITTELSTRASSE 55, September 10, 1894.

BUFFALO MEDICAL AND SURGICAL JOURNAL.

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. OCTOBER, 1894. No. 3.

## AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

THIS sturdy and progressive association held its seventh annual meeting in Toronto, Ont., September 19, 20, 21, 1894.

We speak quite within the bounds of truth when we assert that this meeting was a most satisfactory one to the association and its many friends, from any and every view-point taken. To begin with, the attendance of the Fellows was the largest in the history of the association. Then the audience itself, composed of guests and visitors, at every session was large, lending zest and spirit to the occasion. The invigorating air of Toronto, too, played an active part in stimulating the debaters to do good work. For example, after one day's hard work, an adjournment was had at 5 o'clock, P. M., to permit the association and its guests to enjoy a sail on the steam yacht Cleopatra, tendered by her owners, Messrs. A. E. Gooderham and T. G. Blackstock, after which refreshments were served at the Royal Yacht Club rooms, provided by one of the Fellows of the association, Dr. James F. W. Ross. The invigorating effect of this yachting cruise was exhibited in the animated debate on appendicitis, which opened the same evening at 8 o'clock, and lasted until midnight. Whoever witnessed this splendid exhibition of mental gymnastics could not fail to be impressed with the scene, as well as instructed by the eloquence and earnestness of the debaters. If general practitioners had been in doubt as to the time for operation in cases of appendicitis, such uncertainty must have been dispelled by the forceful manner in which Dr. J. B. Murphy, of Chicago, in one breath put and answered the question, "When shall we operate?" "Now," said Dr. Murphy, "not tomorrow, today, now"!!!

The second day, Thursday, the work began at 9 o'clock, and continued, with one hour's intermission, until 5.30 P. M. At 6.30 P. M. the Fellows assembled at the Toronto Athletic Club, and after the business meeting was concluded, the annual dinner was served. Covers were laid for fifty, and all the chairs were occupied. His Excellency, Mr. Fitzpatrick, lieutenant-governor of the province of Ontario, sat at the president's right, and Professor Goldwin Smith occupied the chair at his left.

Both of these gentlemen made clever speeches, the one in response to the Dominion of Canada, and the other to Sister Professions. Several bright and witty speeches were made, but the one in response to the Medical Profession of Canada, by Dr. Thomas J. Harrison, set the banqueters all aglow with mirth and good feeling. The speeches were frequently punctuated with music by the orchestra and songs by excellent male voices.

The third day opened with the usual spirit, and the work was carried on, with the exception of a short recess, until the final adjournment at 5 o'clock, P. M.

The profession of Canada turned out in full force to attend the several sessions, and there was no time when the chairs were not occupied to nearly the extent of their capacity. The impression left behind by the association was that it is a working body, having little or no time for frolic during the days of its official meeting.

Its annual dinner, on the evening of the second day, is the only recreation that it usually affords itself. On this occasion each Fellow pays for the service of his own plate, and is privileged to invite guests. This fashion was adopted so that the association might feel at liberty to appoint its annual meeting in any city it chose without being a tax on the local profession where it meets for entertainment, as it accepts no hospitalities that either interfere with its work or makes it onerous to the physicians of the city of its meeting. In other words, it desires to feel free to meet whereever it prefers, pay its own way and go about its work in a professional fashion.

The resident Fellows in Toronto, who constituted the local committee of arrangements, are entitled to great praise for the efficient manner in which they conducted the affairs of the meeting. The Council Chamber of the College of Physicians and Surgeons of Ontario, where the association met, is an ideal place in which to hold meetings of this kind. Its acoustic properties are perfect and no street noise interferes with the debaters. At the

conclusion of the meeting a vote of thanks was tendered to Dr. James F. W. Ross, chairman; Dr. A. H. Wright, Dr. I. H. Cameron, treasurer; Dr. R. B. Nevitt and Dr. H. S. Machell for the efficient manner in which they had performed the duties as committee of arrangements.

The officers elected for the ensuing year are: President, Dr. J. Henry Carstens, Detroit; Vice-Presidents, Drs. W. E. B. Davis, Birmingham, Ala., and Henry Howitt, Guelph, Ont.; Secretary, Dr. William Warren Potter, Buffalo; Treasurer, Dr. X. O. Werder, Pittsburg; Executive Council: Dr. Charles A. L. Reed, Cincinnati; Dr. James F. W. Ross, Toronto; Dr. Joseph Price, Philadelphia; Dr. A. Vander Veer, Albany; and Dr. L. S. McMurtry, Louisville.

From Buffalo two new Fellows were elected—namely, Drs. Herman E. Hayd and Stephen Y. Howell. The next place of meeting is Louisville, Ky., and the time chosen is during the third week in September, 1895.

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## TOPICS OF THE MONTH.

Since the University of the State of New York, by virtue of the medical practice act, has assumed control of the examinations for license to practise medicine in this state, new interest attaches to its organization as well as the details of its work. Physicians all over the country are inquiring into its methods, and foreign governments are soliciting its reports. We have heretofore, on a few occasions, briefly alluded to the advantages it is affording physicians and students by the methods it has adopted for preliminary as well as final examination.

The following, from the *New York Polyclinic*, Sept. 6, 1894, is cheerfully reproduced in view of the facts above referred to:

> What is the University of the State of New York? While it holds the "futures," so to speak, of all the embryo doctors, as well as the graduates of every medical college under the recent law, how few could answer the question. Yet the question is well worth answering, for under that title we possess an institution of remarkable administrative capabilities, of utility which, if not absolutely unique, is only paralleled in France, and approached within a certain distance by the London University.
>
> The history of the University of the State of New York is bound up with that of the commonwealth, with which it is nearly coeval. Organized in 1784, it had for its first chancellor George Clinton, while DeWitt

Clinton was its third secretary ; and Alexander Hamilton and John Jay were among its first and most active regents. The "University" is a supervisory and administrative, not a teaching, institution. It is a state department, and at the same time a federation of over 500 institutions of higher and secondary education. Like other states, New York has a department of public instruction in charge of elementary schools, but no other state has a department devoted to the interests of education higher than that which may be classed as elementary.

Considered as a state department, the "University"—we use quotation marks to distinguish it from the meaning usually attached to the term—unites various educational functions elsewhere scattered or entirely unprovided for, and exercises unusual powers. Though most of its work is executive, yet in granting charters to all educational institutions it performs functions usually discharged only by legislatures. On the other hand, in revoking charters and dissolving educational corporations, it exercises the judicial functions of a court. Its examination department embraces not only the functions of the local examinations of Oxford and Cambridge, and of the University of London, but also the state licensing of physicians, and other work peculiar to itself. Its extension department corresponds to the similar departments of Oxford and Cambridge, and of the London Society for the Extension of University Teaching. Its state library and state museum departments not only have custody of collections, among the most important in the United States, but also conduct work allied to that of the English science and art department of the British Museum, and of the London natural history museum.

Regarded as a federation, the University of the State of New York reminds one of the Universities of Oxford and Cambridge, each of which represents a union of colleges ; but in respect of comprehensiveness it differs from these, because it includes all the colleges, academies and institutions for higher education within the bounds of the commonwealth. The law gives to incorporated institutions no option as to their membership in the University. It says : "The institutions of the University shall include all institutions of higher education (the term 'higher' here is construed to embrace what is generally termed secondary) which are now, or may be hereafter, incorporated in this state, and such other libraries, museums, or other institutions for higher education as may, in conformity with the ordinances of the regents, after official inspection, be admitted to or incorporated by the University." This means that no educational establishments, except those of a relatively elementary order, which fall under the authority of the department of public instruction, can have a legal existence in New York without being subject to the regulations and entitled to the privileges provided by the University.

The University of the State of New York conserves the advantages of individual initiative, while extending the benefits of system, of harmony, of co-working in the various members of the educational body, and of organic connection with state life. The organization most closely resembling it is that of the University of France, as devised by the first Napoleon in 1808, twenty-four years after that of the State of New York had been put in operation.

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In a recent number of the Journal we had occasion to refer to the fact that an attempt was made last Winter in the legislature to reduce the State examining fees for license to $5.00, which, if adopted, would practically wipe out the State examining boards. Happily, however, this was defeated. We suggested, at that time, that it would be more rational to reduce the college fees for diplomas to $5.00, which would be adequate to cover the expenses connected with issuing a certificate of study.

In the *Journal of the American Medical Association* we find another plan proposed to relieve students from alleged hardships relating to advanced medical education, as follows :

In an address on higher medical education, before one of our State medical societies, the orator dwells on the alleged hardship to the student when he fails in his finals, and says : "If the law compels a young man to study four years, it ought to give him some guarantee that he will be fairly dealt with. Were our medical schools compelled to refund one-half the expenses of the student who fails to get his diploma (*i. e.*, one-half the cost of three years' maintenance and of three years' loss of time), if the schools were obliged to refund all moneys expended on lectures, the graduating class would not be reduced in numbers, but the 10 per cent. that fail at their final examinations would have some redress." This is just the kind of a proposition that would be apt to strike favorably a certain class of legislators, and it would not be in the least surprising to see it, in the near future, embodied in "An act entitled an act," etc. Meanwhile, the *Journal* commends, to the author of the address under consideration, the following cold facts which have already appeared in these pages : In round numbers, there are upwards of 118,000 doctors in this country, which, with a population, also in round numbers, of 65,000,000, gives an average of one doctor to every 550 men, women and children ; this population increases at the rate of about 2.5 per cent. per annum, but every year we add over 5 per cent. of new doctors. It does seem that we might worry along without making it any less "hard and unsatisfactory" to become a doctor, for the present, at least.

THE *North Carolina Medical Journal*, in a recent number, comments on the ignorance of midwives as follows:

The ignorant, depraved and filthy women who style themselves as midwives in North Carolina, are a disgrace and a shame to nineteenth century civilization. The fate of the parturient woman in heathen India, who is shut up by herself until she has passed through the throes of labor, is no worse, and in many cases better, than the unfortunate one who falls into the hands of some of these creatures. That there should be midwives, who are capable of conducting women through "the perils of child-birth," we suppose is a necessity now, and will be for long years to come, but that this duty should be entrusted to any old ignorant negro, who takes a notion to be a "granny," is supremely wrong.

This class, who deal with the lives of two beings at once, should be controlled by the strictest laws. They should be required to have their names and residences registered with the county clerk, and he should be allowed to register them only when they present a certificate from some qualified person—the county superintendent of health, for instance—showing they possess a reasonable degree of knowledge in the management of cases of labor, including asepsis, diagnosis of presentations, placenta previa, causes for unusual delay in delivery, and proper care of mother and child after labor. They should be required to summon the aid of a registered physician as soon as any abnormal condition is detected—in other words, they should be permitted to conduct to their close only normal cases of labor. They should not be permitted to administer drugs to their patients, and especially ergot, unless all the contents of the uterus have come away. We notice in one of the Northern States (New York, we think), in an act regulating the practice of midwifery, midwives are prohibited from giving drugs *except ergot*. This is probably the most dangerous drug that could have been left in their hands.

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PRIVATE hospitals are so common nowadays as not to attract any special notice either from the profession or laity. Almost every small city has at least one, and in large cities their number is not easily ascertained without the aid of the fundamental principles of arithmetic. It is a fashion that began in the East, but is having its full sway in the West at present.

From this foundation has grown up another system, in which corporations have established so-called sanitaria, issuing stock to physicians whose names appear on the announcements either as attending or consulting members of the staff. It is not our purpose to criticise the establishment of private hospitals for the

treatment of surgical or gynecological cases by scientific physicians. The advantages of this plan are too well understood by the profession and by the patients themselves to need any extended argument to prove them or to admit of any adverse criticism.

But we do think that these great sanitarium companies, established in small towns and cities throughout the country, are overdoing the work most decidedly. A reaction is sure to follow the sanitarium craze that has now taken possession of the semi-invalid and the incompetent doctor.

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That the injection of glycerine, to induce premature labor, is not entirely free from danger, has been frequently demonstrated. The *Richmond Journal of Practice*, August, 1894, contains the following note on the subject that will be found of interest:

Since Pelzer announced that glycerine, when injected between the uterus and fetal sac, would induce premature labor, it has generally been regarded a safe measure, provided everything is absolutely sterile, and the precaution is taken to avoid forcing air through an empty catheter, by filling the catheter, of course, before using it.

That glycerine is not always free from danger has been shown by Pfannenstiel, in an article published in the *Centralblatt für Gynecologie*, No. 4, 1894. Dr. Oscar Embden, of Brooklyn, reports also a case with similar effects in the *Medical Record*, July 28th, and refers to Pfannenstiel's two cases. In two of these cases there were unmistakable symptoms of glycerine poisoning, chief among which was a nephritis associated with hemoglobinuria—*i. e.*, the presence of the red coloring matter of the blood in the urine. This coincides with experiments on dogs and rabbits, the decomposition of the blood producing first a glomerulo-nephritis, which is followed after the injection of more glycerine by interstitial nephritis as well as interstitial hepatitis.

In one of the cases reported there was slight nephritis before the glycerine was injected into the uterus, and this was, of course, intensified. It would seem, therefore, according to these reports, that Pelzer's method is not absolutely devoid of danger, and hence should not be indiscriminately used.

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The antitoxin treatment of diphtheria is attracting considerable attention, especially in Great Britain, where reports are continually accumulating of its benefits. In the *British Medical Journal*, September 8, 1894, is an editorial, from which we abstract the following:

The earliest published cases of diphtheria treated by this method, were a series of thirty reported by Behring and Kossel,

in the *Deut. Med. Woch.*, April 27, 1893. Of these, twenty-four, or 80 per cent., recovered. In April, 1894, Ehrlich, Kossel and Wassermann, in the same journal, reported the results in 220 unselected cases of diphtheria, treated by the hypodermic injection of the serum of goats rendered immune by giving them increasing doses of dead diphtheria cultures. Among the 153 cases, which it was not necessary to submit to tracheotomy, the mortality was only 23.6 per cent. In six treated on the first day there was no death, and in sixty-six treated on the second day there were recoveries amounting to 97 per cent.; whereas, in twenty-three treated on the fourth day the percentage of recoveries fell to 56.5 per cent. It is important to add that in a few instances the great improvement noticed in the first two days was not maintained, and the patients died in ten days or a fortnight of nephritis or cardiac failure. There is some evidence that a person may be rendered immune to the infection of diphtheria by preventive inoculations. Guinea-pigs have been rendered immune by inoculation with the blood serum of patients just recovering from the disease. The dose, to be injected as a prophylactic in persons liable to be exposed to diphtheria, is set down by Behring at sixty antitoxin normals, or one-tenth of number one. After infection, that is, during the incubation stage, he believes that a 150 antitoxin normals ought to avert the development of the disease. Behring states that the serum, prepared and tested under his own supervision, is issued in two forms, number one and number two. Number two is two and one-half times stronger than number one. Number one is sufficient for the treatment of diphtheria in a child under ten years of age. If it be seen on the second or third day, number two serum acts more surely and rapidly. The estimation of the exact strength of the serum is a difficult matter, and it must be recognized that the strength is liable to vary with the commercial source from which it is obtained.

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## Personal.

Dr. Thomas B. Carpenter, of 660 Main street, Buffalo, announces that he has fitted up a laboratory in connection with his office, where he is prepared to make analyses of urine, as well as microscopical examinations of sputum and the various pathological discharges.

Dr. J. F. Krug, of Buffalo, and a member of the board of censors of the Medical Society of the County of Erie, states that he has been made the victim of the unfortunate advertising craze in a weekly newspaper printed in the Polish language and published in this city.

It appears that Mr. A. Karwowski, publisher of the *Reforma*, inserted the advertisement referred to without Dr. Krug's knowledge or consent. Mr. Karwowski has made acknowledgment of this fact in the daily newspapers, which clears Dr. Krug of any suspicion in the premises.

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Dr. Julius Pohlman, of Buffalo, who assumed the practice of Dr. George M. Gould, of Philadelphia, during the absence of the latter in Europe, has returned home and taken up his own practice of ophthalmology. His offices are, as before, at 367 Franklin street.

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Dr. Charles A. Ring, who removed to Johnson's Creek, Niagara county, N. Y., some time ago, has returned to Buffalo and established his offices at 128 Fargo avenue.

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Dr. A. A. Hubbell, of Buffalo, who with his family has been some weeks in Europe, has returned and resumed his professional work.

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Dr. William C. Krauss, of 382 Virginia street, Buffalo, returned from his European trip September 18, 1894.

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## Obituary.

Dr. Albert B. Miles, of New Orleans, professor of therapeutics, materia medica and hygiene in the medical department of the University of Louisiana, died after a brief illness August 5, 1894. Dr. Miles was chairman of the committee of arrangements of the Southern Surgical and Gynecological Association at its New Orleans meeting, November, 1893, and through his active labors contributed greatly to the success of the meeting. He was elected vice-president of the association, which office he held at the time of his death. Dr. Miles will be greatly missed, not only in New Orleans, but throughout the South, where he was widely and well

known. He is reported to have left an estate valued at $250,000, amassed during a practice of twenty years. Under his will the charity hospital, the Hotel Dieu and the medical school of Tulane University of New Orleans will receive $10,000.

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Dr. William Cecil Dabney, professor of obstetrics and of practice of medicine at the University of Virginia, died at Charlottesville, August 20, 1894, of typhoid fever, aged 45 years. Dr. Dabney was eminent in his profession and had received many honors at its hands. He was a prominent member of the Southern Surgical and Gynecological Association.

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## Society Meetings.

The American Medical Publishers' Association held its first annual meeting at Hot Springs, Va., on August 13th and 14th. The president, Dr. Landon B. Edwards, read a paper on Advertising and Advertising Agencies, which was well received and ordered printed. The reports of the secretary and treasurer were examined, and the finances of the association found to be in good condition. Thirteen applications for membership were presented and acted upon favorably. The secretary was instructed to investigate the laws of different states governing charters of incorporated bodies, and report at the next meeting. It was decided that all annual meetings hereafter should be held just prior to the sessions of the American Medical Association, the next meeting being set for Monday, June 5, 1895, at 9 A. M., in the Eutaw House, Baltimore, Md.

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The Southern Surgical and Gynecological Association will hold its seventh annual meeting in Charleston, S. C., Tuesday, Wednesday and Thursday, November 13, 14 and 15, 1894, under the presidency of Dr. Cornelius Kollock, of Cheraw, S. C. The secretary, Dr. W. E. B. Davis, of Birmingham, Ala., in a circular recently issued, invites attention to the importance of sending in the titles of papers at an early day. The meeting promises to be one of great interest.

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The Tri-State Medical Society of Alabama, Georgia and Tennessee will hold its sixth annual meeting in Atlanta, Ga., Tuesday,

Wednesday and Thursday, October 9, 10 and 11, 1894. The sessions will be held in the ball-room of the Kimball House, Atlanta, which has admirable acoustic properties, and is completely shut off from all noise from the street. Dr. Frank Trester Smith, of Chattanooga, is secretary, and Dr. J. B. S. Holmes, of Atlanta, president.

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The Mississippi Valley Medical Association will hold its twentieth annual meeting at Hot Springs, Ark., Tuesday, Wednesday, Thursday and Friday, November, 20, 21, 22 and 23, 1894. The Hotel Eastman will be thrown open to the association for its sessions. The beautiful Indian summer season chosen for the meeting will invite a large attendance.

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The Buffalo Academy of Medicine, after its summer adjournment, resumed its regular meetings on Tuesday, September 11, 1894, at which time Dr. John H. Pryor read a paper on Tubercular Pneumonia, and Dr. A. L. Benedict read one with reference to the administration of opiates. Dr. De Lancey Rochester led the discussion.

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The Medical Society of Virginia will hold its next annual meeting in Richmond, Tuesday, Wednesday and Thursday, October 23, 24 and 25, 1894. The subject for general discussion, open to any physician registered in attendance, is appendicitis.

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The New York State Association of Railway Surgeons will hold its annual meeting Thursday, November 15, 1894, at the New York Academy of Medicine. All railway surgeons of the United States are invited to attend.

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## Hospital Notes.

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The operating amphitheater of the hospital of the Medical College of Virginia, at Richmond, has been remodeled and supplied with all the latest aseptic operating furniture and apparatus. This department is presided over by a trained nurse, whose sole duty is to care for the operating-room, prepare patients for operation and assist at operations.

Two vacancies will occur on the house-staff of the Buffalo General Hospital, November 1, 1894. Term of service, one year; six months on medical and surgical divisions respectively. Candidates must be graduates in medicine. For full particulars address Dr. C. Diehl, secretary of staff, 32 West Genesee street, Buffalo, N. Y.

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# Book Reviews.

SMALL HOSPITALS. Establishment and Maintenance. By A. WORCESTER, A. M., M. D., and Suggestions for Hospital Architecture, with plans for a small hospital, by William Atkinson, Architect. Duodecimo, pp. vi.—114. Price, cloth, $1.25. New York: John Wiley & Sons, 53 East Tenth street. 1894.

In small cities it is often difficult to organize hospitals on a proper basis. Two serious obstacles always confront philanthropic men and women at the beginning of their new hospital movements. The first is, to reconcile the so-called different schools of medicine that must all be represented on the hospital staff; and second, the financial problem is always of the most serious import. When these two can properly be adjusted, the hospital is about as good as established. Valuable hints will be found in this book on these as well as on all other important questions connected with the subject.

It is written in a very agreeable manner and furnishes entertaining reading to all interested in the establishment of small hospitals.

The adjustment of the difficulties between the so-called different schools of medicine is treated of in a manner that will interest both profession and laity, as follows: "The chief difficulty concerns the so-called different schools. In common parlance and in common belief, there are at present in this country two schools of medical practice, one the old school or allopathic, and the other the homeopathic or new school. There are also other schools—the eclectic or Thompsonian, for instance—and there have more lately arisen, schools of faith-cure, mind-cure and of Christian Science healing. But hospitals are not likely to be vexed by any question concerning these smaller schools. The real difficulty comes in what may be called the homeopathic question.

"The first surprise in store for investigators into this question is the wrathy repudiation by all physicians of the term 'allopath.' The homeopathists cherish a theory of cure which is expressed by the word 'homeopathy.' So they, naturally enough, are willing to be called by that name. But physicians who do not happen to believe in any theory of cure naturally object to the name 'allopath,' which implies a belief, or a theory of practice, never coun-

tenanced, if, indeed, it ever existed. The early homeopathists called all others allopathists. That was, and is, considered a reproach by all who know what the word means. And that is why the designation is so indignantly repudiated by the ordinary physician.

"When it comes to the terms 'old school' and 'new school,' there again is found an unwillingness on the part of every physician to be called of the old school. The whole science of medicine, while as old as Galen, is still so rapidly improving that no member of the profession likes to be thought possessed of only time-honored methods.

"Thus, as the question is studied, the difficulty increases of finding acceptable terms in which to describe the very evident differences that divide the medical profession. Well may the managers ask, in despair, of the men who will not be called allopaths or old school doctors, 'What will you allow yourselves to be called?' Unfortunately, the answer will not be very satisfactory, the reason being that the great majority of physicians disclaim any particular system of practice. They feel themselves free to use any remedy or to adopt any methods or measures that promise relief to their patients; and so they want to be free from any prefix to their simple title of doctor of medicine, given them by their universities. They want to be called simply physicians or surgeons, just as lawyers are called attorneys or counsellors at law. But this wish of most doctors, not to have any extra designation, it must be allowed, is very inconvenient. And the public is so wedded to the use of the names 'old school,' and 'allopath,' and 'regular,' and the names are now used in such entire ignorance of the doctors' antipathy to them, that it is only on such occasions as that of a hospital's advent that vehement protests are evoked. No wonder the new managers are astonished at the outburst.

"And still, in spite of the inconvenience in not having a handy name for the medical practitioners in the community who are not homeopathists, it is, perhaps, not too much to ask of the managers that they shall respect the wishes of the common doctors in this matter, and speak of them simply as physicians and surgeons. This much is sure: by accepting the inconvenience and gratifying them in this matter, much will have been accomplished towards a satisfactory solution of the main question.

"Strange as it may at first appear, it is, nevertheless, true that most of the bitterness attached to the question will be found among the laity and not among the doctors. Indeed, the different kinds of doctors generally pull fairly well together. They visit in the same families; they are always willing to help each other in emergencies; and often they are very good friends. In some localities they consult together. But this is not generally the case."

This admirable exposition of the "pathy" question deserves to be read by every intelligent man and woman.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by CHARLES E. SAJOUS, M. D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. Five volumes. The F. A. Davis Company, Publishers, Philadelphia, New York, Chicago and London. Australian Agency: Melbourne, Victoria. 1894.

This standard annual, the most complete in all its details, has gradually obtained the favor of the profession until it has become about the best consulted reference book extant. When it is a little delayed in its issue, subscribers become impatient, because they are anxious to find out what the fruits of the year in medical literature have been.

The series for 1894 is similar to its predecessors, being constructed on quite the same lines, both as to material and mechanical execution. To examine the literature of medicine that issues during the year, and to extract from the great mass that which is of value to preserve, is a Herculean labor, but Dr. Sajous and his associates have proved themselves more than equal to the task for six years before they undertook the present series. And to say that this one is fully up to the high standard already set, is only to render a just praise to a valuable work.

Some of the contributions are of a high order, though we refrain from making invidious distinction where all are so useful, not to say valuable.

It is a pleasure to note that the editor in his preface makes honorable mention of several members of his personal staff, who may be classed as editorial assistants. These are those who, though not contributing to the scientific part of the work, are yet indispensable coadjutors to its successful issue. They contribute to its mechanical excellence and to the promptness of its appearance from the press—two important factors in its success.

Every progressive physician has found the Annual so important an addition to his library that he does not need to be urged to subscribe for it. It is the rare exception to find it absent from a physician's library.

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DISEASES OF THE SKIN; An Outline of the Principles and Practice of Dermatology. By MALCOLM MORRIS, F. R. C. S., Surgeon to the Skin Department, St. Mary's Hospital, London, etc. In one 12mo volume of 572 pages, with nineteen chromo-lithographic figures and seventeen engravings. Cloth, $3.50. Philadelphia: Lea Brothers & Co. 1894.

The author of this book is recognized as a dermatologist of high repute all over the world, hence what he has to say will command respectful attention. His book is essentially a clinical treatise, and, therefore, appeals to the practical dermatologist. Moreover, it is cast in the most modern mold. It is well illus-

trated, with chromo-lithographic plates and wood-cuts distributed throughout the text.

An interesting part of the work is the chapter on artificial eruptions, which includes the various drug eruptions. The list of these is constantly being extended. Morris treats of the more important in detail, adding a table containing a summary of the eruptions caused by other drugs in common use. In this chapter vaccination eruptions are briefly considered.

This book is written for the general practitioner even more than for the specialist, and will be found a safe guide for him as well as an admirable manual for the student.

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Asepsis in der Gynakologie und Geburtshuelfe. Von Dr. M. Saenger, ausserordentlicher Professor an der Universität, Leipzig, und Dr. W. Odenthal, Frauenarzt in Hanover, früher Assistenzarzt an Prof. Sänger's Heilanstalt. With two plates and forty-two illustrations in the text. Leipzig: C. G. Naumann. 1894.

This admirable little monograph is one of the numbers of the medical library for practising physicians similar to Davis's Physicians' Leisure Library, published in this country. It has two plates and forty-two illustrations in the text.

Sänger's opening sentence is admirable. He says: "Gynecology is the surgery of the sexual organs." This is substantially and practically true, and the same rigid rules of asepsis must apply to all gynecological procedures that belong to surgical operations.

The same is equally true of all obstetrical work. When physicians learn that the lying-in room is to be made surgically clean and the patient prepared for her ordeal just as thoroughly as for the operating-table, then will there be less of puerperal sepsis and other conditions that produce ill-health or slow obstetric convalescence, and ophthalmia neonatorum will be an unknown disease.

We commend this little book to the careful study of obstetricians and gynecologists.

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Transactions of the Indiana State Medical Society. Forty-fourth Annual Session, held in Indianapolis, Ind., May 11 and 12, 1893. Octavo, pp. 378. Indianapolis: Wm. B. Burford, Printer. 1893.

Among the State medical society transactions, that of Indiana must be accorded first rank. This statement holds good whether applied to the material published in the volume before us or to the mechanical execution of the book.

Nothing contributes more to the *esprit de corps* of the profession of medicine than a well-organized state medical society and the annual publication of a good volume of transactions. The practical subjects treated of in this volume, together with the able discussions had upon them, testify to the progressive spirit of our Indiana colleagues.

I. A Treatise on Diphtheria. By Dr. H. Bourges. Translated by E. P. Hurd, M. D. Physicians' Leisure Library. Price, cloth, 50 cents; paper, 25 cents. Detroit, Mich.: George S. Davis. 1894.

II. Treatment of Typhoid Fever. By D. D. Stuart, M. D., Lecturer on Clinical Medicine in the Jefferson Medical College of Philadelphia; Physician to the Medical Dispensary of the Episcopal Hospital, etc., etc. The Physicians' Leisure Library series, pp. 104. Price, paper, 25 cents; cloth, 50 cents. Detroit, Mich.: George S. Davis, 1893.

III. Where to send Patients Abroad for Mineral and other Water Cures and Climatic Treatment. By Dr. Thomas Linn, Doctor of Medicine, Faculty of Paris; Doctor of Medicine and Surgery, University of New York, etc., etc. Physicians' Leisure Library. Price, paper, 25 cents; cloth, 50 cents. Detroit, Mich.: George S. Davis. 1894.

These three books are among the latest issues of Davis's Physicians' Leisure Library series.

The treatise on diphtheria gives some of the more recent views on the disease both as to causation and treatment. The brief chapter on false diphtherias is especially interesting.

The treatment of typhoid fever is everywhere attracting attention, especially since the cold bath management is gaining ground. Dr. Stuart's little treatise, therefore, will command many readers.

Every physician has frequently occasion to send patients abroad either for change of climate or with reference to the use of mineral waters at the Spas. In Dr. Linn's manual will be found much information on this important subject.

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Transactions of the Fifteenth Annual Meeting of the American Laryngological Association, held in the City of New York, May 22, 23 and 24, 1893. Octavo, pp. vi.—165. New York: D. Appleton & Company. 1894.

The transactions of this association, always full of interest to laryngologists, are especially so for the year 1893. The papers have already appeared in the *New York Medical Journal*, and so have had a large publication to the medical profession. Everyone who attempts to practise laryngology, whether a member of the association or not, will find it to his interest to subscribe for the annual transactions.

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Index—Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. XV., Universidad—Vzoroff. Quarto, pp. 842. Washington: Government Printing Office. 1894.

This valuable catalogue, now rapidly approaching completion, has occupied the attention of its compiler, Dr. John S. Billings, Deputy Surgeon-General U. S. Army for the past fifteen years. The probabilities are that one more volume will complete the series.

Volume XV. is somewhat smaller than its predecessors and contains 6,152 author-titles, representing 3,312 volumes and 4,235 pamphlets. It also includes 8,596 subject-titles of separate books and pamphlets and 35,667 titles of articles in periodicals. The total in the fifteen volumes, 163,605 author-titles, representing 80,806 volumes and 139,891 pamphlets; also 160,245 subject-titles of separate books and pamphlets, and 497,832 titles of articles in periodicals together with 4,335 portraits.

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THE NURSE'S DICTIONARY OF MEDICAL TERMS AND NURSING TREATMENT. Compiled for the use of nurses and containing descriptions of the principal medical and nursing terms and abbreviations, instruments, drugs, diseases, accidents, treatments, physiological names, operations, foods, appliances, etc., etc., encountered in the ward or sick-room. By HONNER MORTEN, Author of Sketches of Hospital Life, How to Become a Nurse, etc. 32mo, pp. 139. Second edition. Price, $1.00. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The importance of a handy glossary for nurses is so great that it is almost surprising that one has not been issued before. This edition corrects many deficiencies in the former one and considerably enlarges the little volume. It is still kept, however, within the proper limits of the pocket or handbag, so that it may always be in readiness. In the next edition it would be well to add the subject of pronunciation. Medical pronunciation is now becoming standardized, hence all dictionaries should pay attention to this important branch of medical learning. Every nurse should become possessed of this little book.

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THE GRAPHIC HISTORY OF THE FAIR. Containing a sketch of International Expositions, a review of the events leading to the discovery of America and a history of the World's Columbian Exposition held in the City of Chicago, State of Illinois, May 1 to October 31, 1893. Describing the notable features in the several departments, the sculpture of buildings and grounds, the department edifices, the state and foreign buildings and pavilions, the exhibits, etc., etc. With nearly 1,000 illustrations. Chicago: The Graphic Company, 358 Dearborn street. 1894.

Many books have been published commemorating the Columbian Exposition, some of which are constructed on the heroic order, and most of which are incomplete both in illustration and text. The one before us, known as the Graphic History of the Fair, possesses many points of superiority, among which may be mentioned conciseness, completeness of detail, profuseness of illustration, convenience in size and cheapness.

Almost everyone desires to possess some memento of the great World's Fair held in Chicago in 1893, and we have seen no work that affords us more satisfaction than this one. The illustrations are especially to be commended for their artistic perfection, while the text is well written, in plain type, and the paper of fine finish and good weight.

PART I., ESSENTIALS OF REFRACTION AND DISEASES OF THE EYE. By EDWARD JACKSON, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc., etc. Part II., Essentials of Diseases of the Nose and Throat. By E. BALDWIN GLEASON, M. D., Surgeon in charge of the Nose, Throat and Ear Department of the Northern Dispensary; Assistant in the Ear Department of the Philadelphia Polyclinic and College for Graduates in Medicine, etc., etc. Two volumes in one, crown 8vo, 290 pages, profusely illustrated. Price, cloth, $1; interleaved for notes, $1.25. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

Many of the intricate questions relating to refraction are here treated of in a clear manner; so, too, with those diseases of the eye of the commoner varieties. Laryngology occupies the second half of the book and is well handled. It is truly a treatise on essentials and is one of the best of Saunders' Question Compends.

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A CLINICAL MANUAL. A Guide to the Practical Examination of the Excretions, Secretions and the Blood, for the Use of Physicians and Students. By ANDREW MACFARLANE, A. B., M. D, Instructor in Neurology and Diseases of the Chest in the Albany Medical College; Physician to St. Peter's Hospital Out-patient Department, and Physician to Albany's Hospital for Incurables. Duodecimo, pp. xii.—139. Price, $1.25. New York: G. H. Putnam's Sons, 27 West Twenty-third street. 1894.

The author of this little book is to be congratulated upon the manner in which he has grouped so much information into such a narrow limit of book space. No physician can practise medicine successfully unless he employs all intelligent methods for the interpretation of the phenomena of disease. He must interrogate the excretions and secretions in the closest manner, for they often aid in diagnosticating obscure maladies.

Accurate diagnosis forms the foundation of successful treatment. The diagnostician must be at once a microscopist, chemist and bacteriologist. We do not mean, of course, that he must be an expert in all these several branches of laboratory work, but he must have some knowledge of such procedures as can be carried on in his office with a simple apparatus.

This manual by MacFarlane furnishes a valuable aid to the kind of work indicated.

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## BOOKS RECEIVED.

A Practical Manual of Mental Medicine. By Dr. E. Régis, Professor of Mental Diseases, Faculty of Medicine, Bordeaux, formerly Chief of Clinique of Mental Diseases, Faculty of Medicine, Paris. With a preface by M. Benjamin Ball, Clinical Professor of Mental Diseases, Faculty of Medicine, Paris. Second edition, thoroughly revised and largely rewritten. Authorized translation by H. M. Bannister, A. M., M. D., late Senior Assistant Physician Illinois Eastern Hospital for the Insane. With introduction by the author. Pp. xvi.—692. Utica. N. Y.: Press of American Journal of Insanity. 1894.

Attfield's Chemistry. Fourteenth edition. Chemistry: General, Medical and Pharmaceutical; including the Chemistry of the U. S. Pharmacopeia. A Manual of the General Principles of the Science and their Application to Medicine and Pharmacy. By John Attfield, M. A., Ph. D., F. I. C., F. C. S., F. R. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Fourteenth edition, specially revised by the author for America to accord with the new U. S. Pharmacopeia. In one handsome royal 12mo volume of 794 pages, with 88 illustrations. Cloth, $2.75; leather, $3.25. Philadelphia: Lea Brothers & Co. 1894.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Ninety-sixth annual session, held at Baltimore, Md., April, 1894, also semi-annual session, held at Annapolis, Md., November, 1893.

Transactions of the Texas State Medical Association. Twenty-sixth annual session, Austin, Texas, April 24, 25, 26 and 27, 1894.

Fifteenth Annual Report of the State Board of Health of Illinois, for the year ending December 31, 1892. With an appendix containing the report on medical education and medical colleges. Revised to December 31, 1893. Springfield, Illinois: W. H. Rokker, State Printer and Binder. 1894.

Hare's Text-Book of Practical Therapeutics. A Text-Book of Practical Therapeutics; with especial reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. de Schweinitz, Edward Martin and Barton C. Hirst. New (fourth) edition, thoroughly revised and much enlarged. In one octavo volume of 740 pages. Cloth, $3.75; leather, $4.75. Philadelphia: Lea Brothers & Co. 1894.

Flint's Practice of Medicine. A Treatise on the Principles and Practice of Medicine. Designed for the use of Students and Practitioners of Medicine. By Austin Flint, M. D., LL. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, N. Y. New (seventh) edition, thoroughly revised by Frederick P. Henry, M. D., Professor of the Principles and Practice of Medicine in the Woman's Medical College of Pennsylvania, Philadelphia. In one very handsome octavo volume of 1143 pages, with illustrations. Cloth, $5.00; leather, $6.00. Philadelphia: Lea Brothers & Co. 1894.

Young's Orthopedic Surgery. A Manual of Orthopedic Surgery for Students and Practitioners. By James K. Young, M. D., Instructor in Orthopedic Surgery, University of Pennsylvania, Philadelphia. In one octavo volume of 446 pages, with 285 illustrations. Cloth, $4.00; leather, $5.00. Philadelphia: Lea Brothers & Co. 1894.

Bread from Stones. A New and Rational System of Land Fertilization and Physical Regeneration. Translated from the German. Duodecimo, pp. 135. Price, 25 cents. Philadelphia, Pa.: A. J. Tafel, 1011 Arch street. 1894.

A System of Legal Medicine. By Allan McLane Hamilton, M. D., Consulting Physician to the Insane Asylums of New York City, etc., etc.,

and Lawrence Godkin, Esq., of the New York Bar. With twenty-seven collaborators. Illustrated. Volume I. Large 8vo, pp. 657. Price per volume, cloth, $5.50; full sheep, $6.50. New York: E. B. Treat, 5 Cooper Union. 1894.

Materia Medica, Pharmacology and Therapeutics. By W. Hale White, M. D., F. R C. P., Physician to, and Lecturer on, Materia Medica and Therapeutics at Guy's Hospital, London; Examiner in Materia Medica to the Conjoint Board of England, etc. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Clinical Medicine and Therapeutics at the New York Post-Graduate Medical School and Hospital; Visiting Physician to St. Mark's Hospital, etc. Second American edition, thoroughly revised. Small 8vo, pp. 661. Price, $3.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894.

The Medical Register of New York, New Jersey and Connecticut. For the year commencing June 1, 1894. Published under the supervision of the New York Medico-Historical Society. John Shrady, M. D., Editor. Volume XXXII. Price, $2.10. G. P. Putnam's Sons, New York, 27 West Twenty-third street; London, 24 Bedford street, Strand. 1894.

Transactions of the American Gynecological Society. Volume XIX. For the year 1894. Small 8vo, pp. xliii.—363. Philadelphia: Wm. J. Dornan, Printer. 1894.

Transactions of the Medical Society of the State of New York. For the year 1894. Octavo, pp. 507. Published by the Society. 1894.

Abbott's Bacteriology. The Principles of Bacteriology: A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania, Philadelphia. New (second) edition. In one 12mo volume of 472 pages, with ninety-four illustrations, of which seventeen are colored. Cloth, $2.75. Philadelphia: Lea Brothers & Co. 1894.

Essentials of the Diseases of the Ear, arranged in the form of Questions and Answers. Prepared especially for Students of Medicine and Post-Graduate Students. By E. B. Gleason, S. B., M. D., Clinical Professor of Otology, Medico-Chirurgical College, Philadelphia; Surgeon in Charge of the Nose, Throat and Ear Department of the Northern Dispensary, Philadelphia. Saunders' Question-Compends, No. 24. Price, $1.00. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

A Manual of Human Physiology, Prepared with Special Reference to Students of Medicine. By Joseph H. Raymond, A. M., M. D., Professor of Physiology and Hygiene in the Long Island College Hospital, and Director of Physiology in the Hoagland Laboratory. Saunders' New Aid Series. Small 8vo, pp. 382. With 102 illustrations in text and four full-page colored plates. Price, $1.25 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

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CHRISTIAN scientists must now procure certificates from the State Board of Health in Nebraska before they are allowed to practise their peculiar healing powers upon the inoffensive and credulous public. Not a bad law for California.—*Pacific Medical Journal.*

## Literary Notes.

A New Surgical Work.—A System of Surgery, edited by Frederic S. Dennis, M. D., and John S. Billings, M. D., is announced by Lea Brothers & Co. as shortly to appear in three imperial octavo volumes. The list of contributors embraces such names as W. T. Bull, Charles McBurney and Robert F. Weir, of New York; Councilman, Porter, Richardson and Warren, of Harvard; Carmalt, of Yale; Keen, White, Roberts and Wharton, of Philadelphia; Welch, of Baltimore; Park, of Buffalo; Conner, of Cincinnati; Mudd, of St. Louis; and Senn, of Chicago.

An Intra-Mural View, a very artistic brochure, has been received from the Curtis Publishing Company, Philadelphia, publishers of *The Ladies' Home Journal.* As the title indicates, the booklet gives us glimpses of the interiors of the *Journal's* offices and some idea of the work carried on there. The main building, entirely occupied by the editorial and business offices, was designed by Mr. Hardenbergh, the architect of the Hotel Waldorf, New York, and was completed in January, 1893. The exterior is attractive and the interior elegantly appointed and admirably planned. The numerous illustrations, showing the commodious and well-fitted offices, and the accompanying text, giving us some insight into the work in the different bureaus, requiring a force approximating 400 employees, indicate the wonderful success which *The Ladies' Home Journal* has achieved in an almost incredibly short time. The brochure also describes at some length the work of printing and binding the *Journal*, which is carried on in a separate building. An Intra-Mural View will be sent to any one who will address The Curtis Publishing Company, and inclose four cents in stamps for postage.

## Miscellany.

Collection and Preservation of Anatomical Material.—The following circular, which is self-explanatory, has been issued:

At the last meeting of the Association of American Anatomists, the undersigned committee was appointed to "consider the question of the collection and preservation of anatomical material, and to report, at the next meeting, what in their opinion are the best means of accomplishing these objects.

In order to make the work of the committee as comprehensive as possible, and to obtain information which will be of service in arriving at definite conclusions as to the best methods of accomplishing the purposes indicated in the resolution, the committee has deemed it desirable to send to the teachers of anatomy, not only in this country, but abroad, this circular letter, with the questions appended, and respectfully to request answers thereto, as fully as they can be made.

1. Is anatomical material obtained in accordance with a legal enactment, wholly or in part?

2. If there is an anatomical law in your country or state, please send a copy of it to the chairman of this committee, Dr. J. Ewing Mears, 1429 Walnut street, Philadelphia, Pennsylvania. Please state whether the law is satisfactory, whether it is readily obeyed by those upon whom duties are imposed by it, and mention any improvements you would suggest as to its requirements.

3. Is the material received in good condition?

4. What disposal is ultimately made of the remains?

5. Please state what means are employed to preserve anatomical material for the purposes of dissection or operative surgery. If injections of preservative fluids are used, state their composition and the methods of use, at what point injections are made, whether at the heart or in the large arteries, and their effect in accomplishing the preservation, with any changes in the color or character of the tissues. What length of time can material be used in dissection by the methods employed by you? If preservation by means of "cold storage" is employed, please state the cost of the machinery which it was necessary to construct for this purpose, and what means are taken to prevent decomposition after the subject is placed upon the table for dissection.

6. Please state the cost, by the method employed by you, for each subject, (*a*) for receiving it, (*b*) for injecting and preserving it.

7. Do you obtain an adequate supply of material for the purposes of anatomical instruction? How many students are assigned to each subject, and what is the method of allotment?

8. Please give any information which you may deem of importance. As the report will be general in character, the name of the informant or institution will not be mentioned by the committee unless requested.

Your compliance with the request of the committee, *at an early date*, will be fully appreciated as rendering assistance to it in accomplishing its work, and it desires to thank you for the same in advance.

J. EWING MEARS, M. D.,
THOMAS DWIGHT, M. D.,
JOSEPH D. BRYANT, M. D.,

1429 WALNUT STREET, Philadelphia, Pa. *Committee.*

PHRENOLOGY A HUMBUG.—Physiologists looked askance at phrenology from the beginning. It is not disputed that the brain is the seat of the intellect, the will and the emotions, and that their manifestation in any given subject is determined by the volume, conformation and texture of the brain substance; but the method of Gall and Spurzheim, which assigns to every human characteristic its specific locality, has been generally rejected; and now comes a writer in *The Pall Mall Magazine*, who pronounces it a "humbug" and pokes fun at it. He says:

"There is something fascinating in the thought of those precise bumps represented upon phrenological charts, each one a chamber for some busy occupant—some genius of color or song, some tiny cupid of love, some tireless calculator, some gentle sprite of benevolence or parental affection. It is so interesting to imagine all knowledge exactly filed and docketed and pigeonholed, like precious papers stored in the sections of an antique cabinet full of ingenious subdivisions and hidden springs and secret doors.

"We, too, in our youthful days, were fired with enthusiasm for this bewitching science, and read phrenological books, and studied plaster casts, and marveled at many a speculative flight. But, to our dismay, at the first touch of precise investigation the soaring fabric tumbled to the earth.

"Phrenology places the perceptive organs immediately above the eyebrows, and points to the frontal projections, so marked in many heads, as indications of development. It is, however, painfully disheartening to the phrenological student to discover, as he may do by dividing a skull, that there is no brain, but only mucus, against these suggestive bumps, and that the brain lies more than half an inch back, behind a second and inner formation of bone. So much for the 'perceptive bumps.'

"In the second place, phrenology takes cognizance only of the top, front, rear and sides of the head, but wholly ignores the organs which rest upon the base of the cranium. Let the reader imagine a skull severed by a horizontal circular line drawn from the brow, above the opening of the ears, to the back of the head: if the upper portion be removed, it will be seen that in the cup thus exposed, above the roof of the mouth, are some of the largest and most important of all the 'bumps.' Phrenology, being unable to reach these (excepting after death), simply passes them by in silence, which is often an easy way of getting over an otherwise insuperable difficulty.

"We do not dispute the fact that there are subdivisions of the brain, nor that, within recent years, the precise position of two or three mental organs has been determined. But these discoveries have been made not only without the aid of the bumps, but in contradiction of the whole theory of phrenology. Probably the general conformation of a head indicates somewhat of the nature

of the brain within, just as a physiognomist reads much of a man's character by his expression. The awkward facts remain, however, that men of the highest order of intelligence sometimes have their phrenological bumps all wrong, and that physiognomy will fail to detect that yonder meditative youth, with the calm, intellectual brow, and poetic eyes and benevolent expression, is none other than 'Jim the penman.' Were phrenology an exact science, and were the 'bumps' an unfailing guide, any one might qualify him or herself to become a phrenologist; this, however, its professors admit, is not the case. They claim for themselves peculiar and exceptional aptitudes, which common people, and even mere men of science, do not possess. It must, indeed, be hard to say, as the phrenologist is constantly called upon to do, whether an apparent bump is actually a projection, or whether it only seems to be so from the depression of adjacent organs.

"The phrenologist resembles the celebrated character who attempted to judge of the contents of a wine-cellar by sniffing at its keyhole. He has been likened, by Oliver Wendell Holmes, to one who, fumbling about the outside of a locked iron safe, should assume to say what is within. 'Beneath this point,' cries the 'professor,' touching a particular spot on the polished surface, 'lies a bag of gold, to the right rests a bundle of musty deeds, and here my fingers tingle over a jewel-casket.' Yet who knows but that the safe may be as empty as the science of phrenology itself?" —*Literary Digest.*

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The Carpenter Milk Company, at 384 Massachusetts avenue, Buffalo, has, at the suggestion of a number of the prominent members of the medical profession, put in a well-equipped plant for the production of sterilized milk. The value of sterilized milk as a diet during the prevalence of Summer diarrheas, and to prevent fermentation in the digestive tract, is well known, and it is believed to be of importance in preventing the spread of tubercular diseases.

Physicians can prescribe sterilized milk from the Carpenter Company's establishment with a certainty that the sterilization is thorough, as tests by different experts have repeatedly demonstrated.

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Numerical Strength of the Different Schools of Medicine in the United States.—Dr. Scudder, of Cincinnati, has prepared a carefully revised list of the number of practitioners of each school of medicine in the United States. He estimates that the total number of physicians of all schools, according to a recent list issued by the Gardiner Company, of New York, is 118,453. After making allowances for duplicates and dead addresses, Polk esti-

mates the entire number at 106,633. Of these, 72,028 are estimated as regular physicians, 9,648 homeopathic, 10,292 as eclectic, and 1,553 as physio-medical; the remaining 11,524 as unclassified, many of these probably being duplicates, dead addresses and patent medicine men.

The number of homeopathic physicians in the United States has been variously estimated at from 10,000 to 18,000. The above estimate (9,648) is not far from the right figure.

The eclectics lead them with 10,292. There are more eclectics than homeopaths in thirty states and territories out of fifty. The states in which they lead very materially are Arkansas, Georgia, Indiana, Indian Territory, Kentucky, Missouri, Ohio, Oklahoma, Tennessee, Texas and West Virginia.

The number of homeopaths exceeds that of the eclectics in nineteen states and territories. Their chief strength lies in the old Eastern states, like Maine, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island and Vermont.

The chief strength of the physio-medical school lies in Indiana, Illinois and Ohio.— *Cleveland Medical Gazette.*

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"When in Doubt, Operate."—The silly and ignorant crusade against what people are pleased to call vivisection seems to be joining hands with an even more silly and ignorant attack on life-saving surgery. To show the depths to which it is possible to descend, the old aphorism, "when in doubt, operate," has been twisted from its meaning and paraded before the public as an illustration of the awful hankering after operation which is supposed to permeate and degrade the surgical mind. It would be difficult to imagine a greater perversion of truth than is conveyed in the suggestion that, in such a case of doubt as is there meant, the operation would be undertaken for the surgeon's instruction rather than for the patient's good. In case of hernia there can be no more life-saving rule than this of operating if there is any doubt as to whether it may not be strangulated. It was an aphorism derived from experience long before operations had the safety now given them by antiseptics; how much more should it hold true now? To give the patient "the benefit of the doubt" means to give him the benefit of the operation, and none but those who know nothing of the subject could have founded on the phase an argument against the tendencies of modern surgery.—*Medical Fortnightly.*

Virchow's Day's Work.—Prof. Rudolph Virchow, although he will be seventy-three years old on the thirteenth of October, when recently asked at what time he was accustomed to retire, replied: "When my day's work is done. It may be one o'clock, or three or five in the morning, but it is my rule not to sleep until I have finished what I have to do."

That this plan of working has not entirely broken him down was demonstrated by his recent attendance on the Congress of Americanists at Stockholm, and returning home, reaching Berlin in the morning after two days and three nights of continuous travel, he delivered an address before a scientific association, and at five o'clock the same afternoon, took his departure for an equally long and continuous journey to Serajevo, the capitol of Bosnia, to attend an archeological and anthropological congress, at which he presided.—*Philadelphia Polyclinic.*

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Danger in Colored Paper.—Some of the colored paper supplied for kindergarten work is said to have been proved by analysis to contain a small quantity of arsenic, writes Miss Elizabeth R. Scovil in the October *Ladies' Home Journal.* The only safeguard is to purchase it from a reliable dealer. The large firms importing or manufacturing supplies for use in kindergartens have an interest in furnishing the best. One firm has long avoided the use of paper containing poison, preferring that which is absolutely safe, even though the colors may not be as bright.

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The Charles Roome Parmele Company, manufacturing chemists, 98 William street, New York, has been organized and announced as successors to E. M. Johnson Company in the manufacture and sale of the following preparations as specialities: "Arsenauro" (Liquor auri et arsenii bromidi); "Mercauro" (Liquor auri arsenii hydrargyri bromidi); "Calcauro" (Liquor auri arsenii et calcii bromidi); "Manganauro" (Liquor auri arsenii et mangani bromidi).

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The Emperor of Austria has granted to the widow of the late Professor Billroth, a yearly pension of 2,000 florins. This is to be interpreted as a mark of special favor, because according to the law of Austria the pension allowed to widows of professors is only 600 florins. As the distinguished surgeon is understood to have left little or no private fortune, the Emperor's grateful act has given general satisfaction.—*Chicago Medical Recorder.*

Dr. G. Frank Lydston will, on October 1st, begin a second course of illustrated lectures in Regional Surgery at the Masonic Hospital, of Chicago. These lectures will be given every Monday at 8 p. m.—*Chicago Medical Recorder.*

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Buffalo University Medical College began its forty-ninth annual session Monday evening, September 4, 1894. The opening address was delivered by Prof. F. W. Hinkel, M. D., who discoursed upon the relations of the State to higher medical education. The influence of such an address in teaching students to respect medical practice laws must necessarily be good. We hope to publish the able address in full in our November issue.

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Legality of Vaccination.—The Supreme Courts of the States of New York and Pennsylvania have definitely decided that children who have not been vaccinated can be prevented from attending public schools.

This is as it should be, and the sooner other states take cognizance of these decisions and enforce compulsory vaccination laws, the quicker will there be a great advance toward permanently stamping out small-pox.—*Medical Age.*

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A good plan is suggested by the North Carolina Board of Medical Examiners, viz.: When complaints are made by candidates who fail to pass successful examinations, that the questions submitted to the applicant, together with his written answers, be published.—*Charlotte Medical Journal.*

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St. Louis has an ambulance whose motive power is electricity from the street car lines. From the description, it must run on the tracks, so there is possibly a switch to the hospital. *Life*, long since, had a cartoon showing an ambulance attached to a Broadway cable car, in which operations were in progress as the cars moved. The Baltimore car lines furnish material for such an amphitheatre on wheels.—*Maryland Medical Journal.*

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Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

Buffalo Medical and Surgical Journal

Vol. XXXIV. NOVEMBER, 1894. No. 4.

# Original Addresses.

## A REVIEW OF THE RELATIONS BETWEEN THE STATE AND THE MEDICAL PROFESSION IN NEW YORK.[1]

By FRANK WHITEHILL HINKEL, A. M., M. D.

When asked a few days ago to welcome you tonight, to the forty-ninth term of medical lectures held in this university, with a brief address on some subject cognate to your purpose in assembling here, I recalled that this pleasant duty was allotted to me eight years ago.

The assemblage at that time was held in the lower of the two bare and rather dingy lecture-rooms of the old university building at the corner of Main and Virginia streets. The recollection of that occasion, though it is so recent, affords points of sharp contrast between then and now that have suggested the theme of my address tonight. It is not the material changes in our school that occur to me with force, nor that I wish to impress upon you. This spacious, well-lighted, well-ventilated amphitheater, the well-equipped laboratories, this imposing building, excellent in its appointments and architectural effect—these are, indeed, in striking contrast to the surroundings in which I then addressed the incoming classes. I would not underrate the importance of these improvements, nor the benefits that innure to you from the increased opportunities and facilities they afford; but it is the significance of this costly building and equipments, and the increased requirements and obligations that have devolved upon you therewith, that I wish to call to your attention.

Great achievements, like great trees, have widespread roots and result from long and slow-acting forces. This building, in its

1. Introductory address to the forty-ninth course of lectures, Medical Department, University of Buffalo, September 24, 1894.

conception, planning and completion, has a history of wide ramifications and no mean interest. The history of that which it typifies and which alone gives it significance—the history of the increasing importance of medicine in its relations to the state, and of the increasing qualifications and protection that the community is demanding of us,—this is, indeed, deep-rooted in the past and complex in its relations.

I shall endeavor to present to you, with such brevity as the occasion demands, a review of the relations of the medical profession to the people of this state, as exemplified by the various legislative enactments providing for the licensing of physicians, their qualifications, etc. I have chosen to review the medical history of this state as of most interest and practical instruction to us, and because it is in this state that the relations between the state and medical profession have reached the highest plane yet achieved in this country, both as regards the well-being of the state and the dignity and honor of the profession.

The first act to regulate the practice of medicine passed in this state was on March 23, 1797. By it the candidate for license was required to show that he had studied medicine for a term of four years with a "respectable physician or surgeon." A sworn certificate to this effect from his preceptor was presented before either the governor, the chancellor of the university, the judges of the Supreme Court or the attorney-general, who endorsed upon it a permit to practise. This was then filed in the clerk's office. The degree of M. B. or M. D. from a medical institution qualified to practise on filing of the diploma. There were then in the United States but three medical schools, the University of Pennsylvania, Columbia College and Harvard. You will note that graduation from a medical school was not essential to the obtaining of a license, nor was there any examination as to the candidate's fitness, and that the licensing power was solely in the hands of the legal profession. This subordination of the medical to the legal profession was in accord with colonial usage.

In 1806, a new act altered radically the relations of medicine to the state and greatly increased both its importance and its responsibilities. By this act the physicians "now authorized to practise" were directed to assemble at a certain date in the several counties of the state and form county medical societies. Each county society was to appoint a board of censors, whose duty it was to examine all candidates presenting themselves for license to

practise. These several boards of censors were constituted the sole powers from which licenses to practise could be obtained. Three years of medical study were required before the candidate was admitted to examination. Each county society was required to appoint delegates to meet annually at Albany, these delegates to constitute the Medical Society of the State of New York.

This bill has two striking features of great import to medicine. For the first time it entrusted the control of medical practice solely to the medical profession,—not to magistrates and lawyers. Practitioners of medicine were constituted, as it were, a branch of the legislature. A state society, representative of medicine, met annually at Albany to supervise medical education and medical practice in the state, and to lay before the legislature and the people whatever concerned the well-being of the state from the medical standpoint! It was an honorable and a responsible obligation laid upon the members of our profession, and it appears that while it rested upon them it was honorably and responsibly fulfilled in the main. The annual addresses of the successive presidents for many years after the foundation of the state society portray a keen consciousness of the important relations the society bore to the state, and of the interest the legislature and the people took, or were supposed to take, in its proceedings.

The other feature of this bill of abiding interest, is that it provides for an examination of the student as to fitness, by representatives of all the practitioners of medicine in the state, before he was allowed to become a member of the profession. For, by this bill, the degree of M. D. obtained from a medical school did not license to practise without the censors' examination. Four years' of study with a preceptor were required of the candidate, but the degree of M. D. from a medical school was not an essential prerequisite to examination.

By these two features of this enactment the medical profession in this state was raised to the honorable position of a self-regulating, highly responsible, peculiarly privileged organization, having delegated to it functions of grave moment to the community.

This relation of the profession with the state continued in force, in its important details, for many years. There were two weak features in this scheme of medical control, and it is to the credit of the profession that it was well aware of them and sought

to correct them. The report of a select committee of the Medical Society of the State of New York on the subject of medical education, presented at the meeting of 1840, points out these defects with much clearness and force. This committee was the outcome of agitation in several previous years, and it made an exhaustive report. This report laments the inadequacy of the education required preliminary to the beginning of medical study. It points out the great advantage to the profession and to the individual practitioner of sufficient preliminary mental discipline, but it has no adequate suggestion for the enforcement of such qualifications. The other and very palpable weakness in the law lay in the multiplicity of licensing bodies with varying standards of requirements. The report asserts that in 1840 there were "at least fifty bodies of men in the state authorized to permit an individual to practise physic and surgery." The only remedy suggested was to lessen the number of licensing bodies to correspond to the senatorial districts, and at the same time to increase the size of each.

In 1835, an act was passed by the legislature incorporating the medical faculty of Geneva College as a medical school, and its trustees were empowered to confer the degree of M. D. This degree was declared a license to practise medicine in this state. This was the first clip of the shears to weaken our medical Samson and take away his power and his responsibility. By this enactment the power to license and regulate medical practice was taken from the profession at large, through its delegates, and placed in the hands of a private corporation—and that a corporation tempted withal, by every incentive, to increase the number of licentiates. By an earlier enactment the board of regents of the University of the State of New York was enabled to confer the degree of M. D., which degree was a license to practise. This applied practically to the graduates of the College of Physicians and Surgeons in New York—the medical school of the State University. In the hands of the regents such power was safe. When it was further extended, its tendency was harmful and prejudicial to the interests of the State and the medical profession, endangering the one, degrading the other.

In 1837, the University of the City of New York was authorized to establish a medical faculty whose degrees were a license to practise. In 1839, the Albany Medical School was granted like permission. With these exceptions the control of medicine

remained in our hands until 1844, when the legislature enacted a law that took away our high prerogative, and created in effect a system of free medicine in this state. It removed all restrictions from the practice of medicine and put unlicensed practitioners on exactly the same basis with those who were licensed. In this slough the state and the profession wallowed until 1872. The slime of it still adheres to us.

The causes that led the state to reverse its policy of nearly forty years, and to revoke the responsible duties heretofore delegated to our profession, I have not had time to investigate with that care their interest and importance warrant. By inference, I deduce that they were quite complex. The annual addresses of the presidents of the state society, and the reports of certain of its committees, for a number of years preceding the repeal of the medical practice bills of 1806 and subsequent years, contain more or less extended reference to the attempts of various "isms" and "pathies" to obtain entrance to the medical fold other than by the appointed gates. The mistaken, if often well-meant and unselfish, zeal which led to injudicious assaults upon the budding "fad" of homeopathy and occasionally to inexcusable treatment of its individual adherents, was a not unimportant factor, I believe, in producing a "free-medicine" bill. We may deduce a moral, in passing, that undignified invective and ecclesiastic-like intolerance cannot but weaken the best of causes before a public tribunal. The "under dog" gets the sympathy if there be manifest disparity in size and strength.

About this time, commensurate with the rapid extension of our country and its great material development, began the establishment of medical colleges in various thriving towns throughout the United States. Helpless New York must have been a rare market for the raw products of many of these schools. Without efficient supervision as to the character and extent of their teachings, without the former valuable separation (in this state at least) of the graduating from the licensing power, with every incentive that greed or ambition could give to graduate the largest number possible, the wonder is that these schools did not more abuse their absolute power.

Unquestionably, the *personnel*, the character and the dignity of the medical profession were seriously lowered by this combination of circumstances, not only in this State but throughout the United States. And yet we must remember that this clipping of the pre-

rogatives of our profession, this lowering of its plane, was one manifestation of the spread of the democratic idea that has affected everything in our social, political and even religious life. Our medical schools but fulfilled the "law of supply and demand," as they multiplied practitioners with such facile rapidity. New communities ever springing up needed medical care, and he who knew a little was more serviceable in many ways, and no more dangerous in some ways, than he who knew nothing. Our great civil war created an enormous demand for military surgeons, many of whom, it must be admitted, were as raw recruits as—and a deal more dangerous than—the "boys in blue" or grey, as the case may be, upon whom at first they operated. Higher standards and more rigorous requirements would have found few outside of our older communities who were equal to them in mental training. For, despite the "free school" system throughout our country, higher education, until very recently, has in no wise kept pace with our commercial and material development.

During these "dark ages" of the profession in this state and at large, there was no lack of shining lights, it is true, who, by personal example and teaching, kept high ideals and aims before our young men. The records of the meetings of the state society continuously contain addresses and committee reports deploring the existing relations of the medical profession and the community and urging various reforms. Two medical schools stand out illustrious in this time for their efforts in behalf of a higher medical education. The Medical School of Harvard University, early in the '70's, adopted a graded course of instruction, and required three courses of study of eight or nine months each before graduation. Certain educational requirements were held necessary for admission to study in the school. The University of Pennsylvania followed closely with the same requirements—a proud record for the alumni of these institutions.

That I have not shaded the history of this time too dark ; that I have not laid too large a share of responsibility on the medical schools in asserting that the power of granting license to practise in addition to the medical degree, permitted by law at this time, was detrimental to their standards and injurious to the state,—let me present some statements from the fifteenth annual report of the Illinois State Board of Health. I wish to acknowledge, in passing, though time forbids interesting details, the powerful

influence for better medical education exerted by the acts and reports of this board since 1880.

In 1840, there were seventeen medical schools in the United States, of which two were in this state. In so recent a year as 1880, fifty-seven of the schools in existence in the United States furnished the following educational data: Forty-three were regular; ten were homeopathic; three were eclectic; and one, of a nondescript kind, was classed as "miscellaneous." Of these fifty-seven schools only fifteen—fourteen regular and one homeopathic—exacted any qualifications of their matriculates. The other forty-two made no inquiry of their fitness for entry upon the study of medicine. Forty-one of the fifty-seven schools conferred the degree of M. D. after attendance upon two annual courses of lectures of an average duration each of but 22.6 weeks—scant five months. Only thirteen regular and two homeopathic schools required three annual courses of lectures. More than half the regular schools graduated upon two annual lecture courses averaging less than twenty weeks each. In only fifteen schools were the lecture courses graded. Such a showing for only fourteen years ago!

But light began to break upon the "dark age" in this state in 1872, when the efforts of the profession and the influence of enlightened public opinion secured legislation looking to the restraint and control of medical practice. In 1874, in 1880 and again in 1881, various laws were enacted for the same object. It is unnecessary to detail them. They proved unsatisfactory in results, for they were somewhat obscure and contradictory in terms, and they had in common the fatal defects that they did not restore to the medical profession the selection of and responsibility for its membership, and did not sever the licensing from the degree-conferring power. But earnest and persevering members of our profession renewed the struggle in the past decade, and at last the ancient landmarks have been restored—and a good deal bettered in the restoration. When we consider their recent success in securing the enactment of the medical laws under which we meet this evening, it is a matter of pleasure and pride to recall that this "reform bill," fraught with so much of promise and benefit to our profession, had its inception here in Buffalo. Probably no one man did more active or efficient service in procuring the enactment of the present law than a member of our faculty, Professor H. R. Hopkins.

I need not repeat the details of this law to you, so recently

beginning the study of medicine or so soon to enter practice under its auspices. I would call your attention briefly to the relations it establishes anew between our profession and the state and to the advantages and the obligations it entails.

1. As of yore, the state delegates to the medical profession the sole power to decide the fitness of candidates for entry to its membership. The examining board, that decides the fitness of every candidate by examination, is appointed by the Regents from nominees from the official medical societies representing the entire medical profession of the state. Hence, the licensing power lies ultimately directly with the medical profession. Two points of superiority over the old laws of 1806 to 1844 merit our attention in this connection. One, that the degree of M. D. is a prerequisite to examination for license. This degree must be obtained from a medical school having a three years' course and registered by the regents of the University of the State of New York as having a satisfactory course of study. The other, of peculiar interest, is the constitutional oath of office required of each examiner, such as is required of any civil officer of the state. The medical profession, through this delegate from its ranks, becomes a part of the executive machinery of the state. I need lay no stress on the honor and the obligation this lays upon us.

2. The license examinations are entirely separate from the examinations for the degree of M. D. which must precede them. By the system employed in the state examinations the examiner does not know the name of the applicant whose paper he examines, nor what school has conferred upon him his degree of M. D. The personal equation is reduced to its lowest quantity.

3. A certain minimum of preliminary education is required of the student desiring to matriculate in a medical school in this state. This is enforced by requiring regents' certificates of proficiency from every matriculate, without which he is not admitted to the license examinations. Thus a defect in the old law, commented on before, is obviated in part.

4. Of inexpressible value is the uniformity of standard obtained in the examinations by this law. You will remember the grave defect in the old law by which there were as many standards as there were county societies. This is remedied effectually through the regents of the University of the State of New York.

No institution in this state is more creditable to it than the University of the State of New York; no office in its gift is more

honorable and important than that of regent of this university; yet I feel safe in asserting that no institution and no offices of this state are so little known and understood by intelligent citizens as these. Some, at least, of my hearers have passed "regents' examinations." How many of you know just who the regents are, or why the examinations are so called? George William Curtis, in his address as chancellor of the University of the State of New York before the University Convocation in 1890, recounts, amongst other anecdotes to the same effect, that "one of the most eminent lawyers of the state" begged to congratulate him a few months before on his election as chancellor, and at the same time asked "where the university was situated." Supported by this anecdote, and more by recent observations of my own, I believe a few words about the regents are necessary to a clear understanding of the merits of the medical law of '93, though I have already transgressed on your time and patience.

In 1787, the legislature, under the influence of the wonderful state-craft of the illustrious Alexander Hamilton, created the University of the State of New York, substantially as it now is. Its powers were enlarged and confirmed on the original lines in 1889. These powers are vested in nineteen regents elected for life by the legislature with the same formality as that attending the election of the United States senators. It is the only life office in the state. It is thus raised above party politics, and the regents' chairs have been, and are, filled by honorable and cultured men. Buffalo has the honor of having one regent, Mr. T. Guilford Smith. The Governor, Lieutenant-Governor, Secretary of State and the Superintendent of Public Instruction are *ex-officio* members of the Board of Regents. The functions of the university are the control and supervision of the academies, high schools, colleges, universities, professional and technical schools—in short, all the academic and higher education of the state, including the libraries and museums and the legal and medical license examinations. The primary education of the state is under the control of the superintendent of public instruction; but, by controlling the entrance examinations of the high schools the regents set the standard for the grammar schools. The regents have large powers and they can alter or revoke for cause the charters of the various educational institutions under their control. These number, at present, between 500 and 600. The University of the State of New York is a supervisory and administrative, not a teaching, institution. It has

no buildings and no classes. Its purpose, as defined by law and fulfilled by the regents, is to encourage and promote education in advance of the common elementary branches. This it accomplishes by the standards set in its examinations in our high schools, by the distribution of an academic fund, by inspectors, by convocations of our leading teachers and by its constant subtle stimulus to higher educational aims and better results.

We have here a mechanism possessed by no other state for securing a high, uniform and fair system of examinations; and the framers of our bill wisely entrusted this important function to the regents, with results obtainable in no other way. The regents are able to enforce uniform matriculation requirements as could no other power. They are able, by means, time fails me to detail, to render uniform the examinations for license by the boards of the different "schools" of medicine and they will surely carry the standard higher and higher, instead of allowing it to lapse with time as might occur with any other supervising institution. By their registration of the medical schools that demand satisfactory courses of study before conferring their degrees and by admitting to examination for license only the graduates of these schools, the regents exert an immense influence toward higher standards in the medical schools of the entire country.

Under the present regulations our profession now stands, in relation to the state, in the proud and responsible attitude of the accredited guardians of the public health and safety as pertains to medical matters. We are provided with machinery to enforce, in this state, a fair degree of preparation for medical study, a sufficient course of study in quantity and quality in the medical schools, whose graduates wish to practise in this state, and fairness and uniformity in the requisites for license—for admission to fellowship in a body again raised to unusual honor in the state. Let us remember *noblesse oblige*. It will some day be your duty, through the county and state societies, to guard carefully the charge thus entrusted you, as well as in your private and professional life.

Do not look upon the license examinations as a burden laid upon you. Heed not the low-minded suggestion that it is a manifestation of "trades-unionism." You have seen that it has improved your schools and has raised, and will still further raise, your future profession in the estimation of your fellow-men,—and, of yet greater importance, in your own estimation. Personally, it

will be a matter of pride to hold a license to practise from the State of New York. It will give you standing in the profession wherever you go, as has heretofore been the case solely with the alumni of a very few of our medical schools in this country. The report of the examination department of the University of the State of New York for February, 1894, says: "No other state examining board has yet been registered as maintaining a standard equal to that fixed by the New York law." This report says, furthermore: "The greatest gain from the new system is in its deterring many incompetent men from becoming candidates; but of this there can never be statistics. . . . Formerly, without considering those from other states who came to New York, between 600 and 800 physicians were annually graduated by New York medical schools, with authority to practise medicine in the state. Under the present law, the total number licensed annually will, probably, fall short of 400. The new law, while an effective barrier to the ingress of the incompetent, has also operated to raise the standard of preliminary education and to improve the tomes of study and methods of teaching in the medical schools."

If you pursue your studies faithfully and with due diligence, after you receive your degree from our school you need have no fear of the licensing board. The medical profession, unselfish and high-minded in its purpose, will welcome you to its ranks. It seeks not to embrace only the brilliant or the talented; it aims only to exclude the positively incompetent or morally unfit. With this assurance and incentive to win membership in a profession that today stands higher in the state and the community than ever before, and with greater possibilities and responsibilities upon it, I welcome you cordially to the ensuing course of lectures in the Medical Department of the University of Buffalo.

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Vaginal Injections after Labor.—Eberhart maintains that injections are always needed after delivery when there is gonorrhea, when there is any other profuse discharge, when the vaginal mucus is fetid, when the temperature rises, and when any obstetric operation has been performed. Otherwise the injections are not needed in normal labors in private practice. In hospitals they must always be used. Eberhart has seen the best results follow preliminary vaginal douches, after Kaltenbach's practice. He uses them in private as well as in hospital. He has discarded sublimate, and employs a one per cent. lysol solution. For intrauterine injections lysol should always be employed.—*Centralbl. f. Gynäk.—University Med. Mag.*, September, 1894.

# ON THE CLINICAL AND BACTERIOLOGICAL ASPECT OF MIXED OR CONCURRENT INFECTION IN PULMONARY TUBERCULOSIS.[1]

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The privilege of presiding over your deliberations is at once an honor and a pleasure which I fully appreciate, and for which I thank you. Let us hope that the results of our coöperation today may redound to the credit of our profession; that we may return to our homes with enriched knowledge and the laudable ambition to renew the contest against disease with increased energy.

The subject which I purpose to bring to your notice today has been chosen after much thought and a thorough appreciation of the great responsibility devolving upon me. I have purposely chosen to unfold the Clinical and Bacteriological Aspect of Mixed Infection in Pulmonary Tuberculosis, for the reason that I wish to incite in my auditors, and in those to whom these words may be addressed ultimately, a desire to combine such methods of precision as have been made available for the more positive recognition and the consequent rational treatment of disease. It is true that the pathology and bacteriology of the subject has been carefully and scientifically investigated during the past decade, while the clinical picture has remained incomplete, and deserves to be brought before the profession for a more thorough discussion than it has yet received, when the various types of concurrent infection in acute and subacute tubercular phthisis shall be readily recognised and their significance better understood. In considering the clinical aspect of mixed infection in phthisis, I shall confine myself particularly to a class of cases in which bacteriological examination in conjunction with physical manifestations has made the cöexistence of an acute pneumonia with either a latent or active tuberculous process positive; a complex of disease which involves, as a rule, a large area of lung tissue, in which pathologic examination shows the presence of both processes mentioned, with one or the other in the ascendancy. The clinical picture is one of profound infection, terminating in a relatively short time; or if tuberculosis has preëxisted, the fatal termination is hastened by such concurrent infection. Andral[2] long ago called attention to the

1. President's address before the Central New York Medical Association, Buffalo N. Y., October 16, 1894.

2. Andral. *Clinique Medicale*, fourth edition, T. II., p. 33, ff.

occasional development of a croupous pneumonia in a tuberculous lung. In such cases, it was held that the tubercular disease antedating the pneumonia, was lighted to rapid degeneration by the addition of the pneumonic process. These were characterized by Morton[1] as "phthisis, a peri-pneumonia." In another class of cases it was supposed that the pneumonia developed in previously normal lungs, but that tuberculization ultimately followed.

In such cases resolution had been faulty, or it did not take place at all; dulness, flatness and bronchial breathing and crepitant with other râles, persisted, and finally tuberculosis developed in a lung, the seat of chronic inflammatory thickening. The form of pneumonia, according to Andral, which led to this condition, was the croupous. Herein lies the fault of Andral's reasoning, according to more recent authorities (Fränkel and Troje)[2], for, in these cases, there is no true pleuro-pneumonia which undergoes tuberculization, but the affection which gives rise to the symptoms is entirely different, both anatomically and clinically, certainly etiologically, a process which Virchow has called "smooth or gelatinous pneumonia. According to the writer's observation, it would be an absolute impossibility to state with any degree of certainty that a tuberculous herd was not already present in the lung or bronchial glands before the advent of the process which so closely simulated croupous pneumonia. Stokes[3], in speaking of the three forms in which acute tuberculosis shows itself, after considering first the ordinary miliary variety, speaks of a second form which probably corresponds to what, with our more recent methods as aids in diagnosis, we would class as mixed infection, and which he considered pneumonic owing to a continuation of the crepitant râles. The third variety was associated with hemoptysis, probably broncho-pneumonic, and corresponds closely with the cases which Baumler[4] has recently described so well, dwelling forcibly on the aspiration of infectious agents as a pathogenic factor. To this point the writer will again revert when considering the various forms of mixed infection in phthisis. Traube[5] was the first to elucidate the clinical picture of acute cheesy pneumonia. Possibly

1. Morton. Andral, I. c., T. I., p. 389.

2. Fränkel and Troje. *Zeitschrift für Klin. Medizin*, S. 33, Bd. 24.

3. Stokes. *Diagnose und Behandlung der Brust Krankheiten.* Translated by Busch, Bremen, 1838, p. 736, ff.

4. Baumler. *Deutsche Medizinische Wochenschrift*, 1893, p. i., etc.

5. Traube. *Uebergruene Sputa. Beitrage zur Pathologie und Physiologie, Bd. II., S.* 699-716.

some of his cases were of a croupous variety, concurrent with pulmonary tuberculosis; this last statement is justified when we take into consideration the fact that the cases which he describes could not be differentiated from ordinary fibrinous pneumonia during life. Large areas of lung tissue were involved or an entire lung was infiltrated. In many of these cases there was a "green sputum," which served to give the title to Traube's original paper. Such sputum, we now understand, is often found in ordinary croupous pneumonia, is almost translucent and glassy, occasionally of a grass-green color. The color depends on a modification of the blood-coloring matter, the presence of which is made certain by the large number of red blood-corpuscles found microscopically. These cases it would be difficult for us to classify. Traube, who lived before the day of bacteriological diagnosis, gave no data sufficiently scientific to justify us in concluding to which category his various cases belonged. His acute clinical observation, however, taught him to conclude that the cases of cheesy pneumonia were not ushered in with the decided chills so characteristic of ordinary croupous pneumonia, even when concurrent with acute pulmonary tuberculosis. He also called attention to the fact that in tuberculous pneumonia, bronchial breathing appears very late, sometimes as late as the end of the second week, the râles are large and coarse, rarely the characteristic crepitant râle of fibrinous pneumonia. These differential points, it is well for us to remember at this point, I shall have occasion to emphasize as differential aids before ending the discussion of this subject.

Walshe[1] believed that "pneumonia frequently occurs in the course of tuberculous disease or at its close. In the former case, it is either a mere local effect of the progress of tuberculization, or it may be extensive and acquire almost the importance of an idiopathic attack of the disease. But, even then, it is rarely of serious augury; it is, singularly enough, less fatal than primary pneumonia. Some of the most marked examples of rapid resolution I have met with were in phthisical persons. The mean duration of the inflammation even is less than when occurring in sound lungs." This latter observation is not, as a rule, confirmed by our clinical experience, though, in some cases, the resolution in concurrent catarrhal and croupous pneumonic areas has been rapid and satisfactory. The fact cannot be denied that, in this country, pneumonia accompanying the closing stage of tuberculous phthisis

1. Walshe. Disease of Lung, fourth edition, p. 442.

is almost invariably fatal. Walshe still further emphasizes the fact that, while pneumonia of the apex is not always tuberculous, it is, nevertheless, in the large majority of cases, when limited to the apex anteriorly, of tuberculous origin.

These data, coming to us from a time which antedates bacteriological diagnosis, while of great value owing to the high standing of the authorities quoted, and the fact that many were prompted by the results of authentic *post mortem* investigation, are certainly less convincing than the conclusions which it is my privilege to offer as the result of clinical observation, positive bacteriological evidence of the presence of two or more infectious agents, and ultimate anatomical examination.

What do we include under the head of mixed or concurrent infection in pulmonary tuberculosis? Those cases of tuberculosis, which are accompanied by inflammatory processes in the lung, caused by the concurrence of two or more infectious agents, one of which is the tubercle bacillus.

This, as I will explain later, allows of the consideration, in conjunction with this subject, of acute catarrhal and croupous pneumonia as concurrent with pulmonary tuberculosis, and those forms of pneumonic tuberculosis, in which the addition of streptococcus, or staphylococcus, to the tubercle bacillus cause the extension of the infiltration and exudation. This admixture finally hastens very materially the progress of the original active or latent disease—the latter being kindled into activity. In conjunction with this subject it will be wise for us to pause before proceeding further, to consider the results of mixed infection and determine whether we have clinical or bacteriological data at the present time, which justify us in concluding that the tubercle bacillus alone, without the presence of other infecting agents, has the power of causing changes in the lung which simulate very closely the various forms of acute and non-tuberculous pneumonia.

This question can be answered, I think, in the affirmative. My position is strengthened by the positive fact that, in accordance with advanced pathological as well as bacteriological research, which must of necessity influence us in our clinical studies of these cases, both lobular and diffuse desquamative pneumonia are the direct products of tubercular infection. Prudden,[1] in a recent experimental study on Concurrent Infection and the Formation of Cavities in Acute Pulmonary Tuberculosis, concludes that "the

1. Prudden. *New York Medical Journal*, July 7, 1894.

effects which may be induced in the living body by the tubercle bacillus are cell proliferation, productive and exudative inflammation, local obliteration of blood-vessels, necrosis and septic intoxication. These effects may all vary within wide limits, with the virulence of the infecting germs and the susceptibility of the affected individual. . . . The experimental studies on the tubercle bacillus and its effects on the living lung tissues of animals, soon make it clear that the tubercle bacillus cannot only cause the formation in the lungs of the new organized tissue, which in its various forms and marked tendency to cheesy degeneration we are wont to call tubercular, but also that it may, to a certain extent at least, be responsible for a simple exudating pneumonia, in no wise morphologically characteristic, and for a large proliferation of vesicular epithelium."

Clinically corresponding cases in the human subject are differentiated with great difficulty from the various forms of acute catarrhal and other forms of non-tubercular pneumonia. The previous history, with repeated microscopic examination of the sputum centrifugalized, can alone establish a positive diagnosis in many of these cases. The conclusion must be reached that the tubercle bacillus alone can and does cause inflammatory changes simulating the acute forms of pneumonia. Birch-Hirschfeld[1]: "Cheesy broncho-pneumonia cannot be considered a concurrent disease, for it is the primary effect of the tubercular infection, though it may not, and often does not, show itself in chronic phthisis until after the interstitial, or, more particularly, peri-bronchial changes have taken place. The cases in which acute diffuse desquamative pneumonia occur in areas of lung tissue, the seat of tuberculous disease, are quite different. Here the changes may take place during any stage of pulmonary tuberculosis. If the latter has been latent, we get the characteristic picture of an acute pneumonia ; if in conjunction with a tuberculosis already recognized, but slowly advancing, we would speak of the complication as 'intercurrent pneumonia.'" Not infrequently it happens that in far advanced pulmonary tuberculosis of the apices, or in a tuberculous process of the base of the lung, an acute desquamative pneumonia attacks the remaining portions of the healthy lung, and death follows in a short time. Both the lobular and desquamative pneumonia, in such cases, are the direct product of tubercular infection. The influence of added pathogenic germs upon such processes must of necessity modify

1. Birch-Hirschfeld. *Pathologische Anatomie*, Vol. II., p. 430.

very materially the primary disease. The many clinical evidences of acute inflammatory changes in the lung in cases of chronic phthisis, with, not infrequently, cases in which physical signs of such exacerbation disappear entirely, are adequate to excite our curiosity for a careful study of the causes sufficiently potent to produce these effects.

Babes,[1] in 1888, found in fifty-two tuberculous children, forty-two cases in which other bacteria were found with the tubercle bacilli. The most common germ was the streptococcus pyogenes, while often the pneumococcus of Fränkel with other germs were present. The tubercle bacillus being, according to Baumgarten,[2] non-pyogenic, the association of these germs may account for the widespread and serious complications which we so often find beyond the seat of the tubercular lesion. Clinical and microscopic examination make positive the fact that the tubercle bacillus is confined to the seat of tubercular lesions, while the pyogenic germs admixed are widely spread in the various organs of the body. In adults, (Babes)[3] the association of other germs with the tubercle bacillus is perhaps less frequent, but in the cavities in pulmonary tuberculosis the association of the staphylococcus pyogenes aureus and a streptococcus were found. In nearly all tubercular lungs (Babes) the micrococcus, lanceolatus and streptococcus pyogenes are present. A fact of the greatest importance in conjunction with this subject is, that the administration of tuberculin to animals made them susceptible to the streptococci, pneumococci and other disease-producing germs which had ceased to be active or virulent in healthy animals.

Kitasato[4] found, in examining the secretions in tuberculous subjects from the deeper air-passages, after repeatedly washing in distilled water, large numbers of germs associated with tubercle bacilli, which he considered instrumental in producing many of the manifestations of the disease. Cornet,[5] after a large number of investigations, concluded that pulmonary tuberculosis is very likely to be a mixed infection, that the cavities and sputum show, in con-

1. Babes. *Sur les Associations Bacteriennes de la Tuberculose, Congress pour l'etude de la Tuberculose*, 1888.

2. Baumgarten. Quoted by Fränkel and Troje. *Zeitschrift für Klinische Medizin, Bd.* 24.

3. Babes. *Sur les Associations Bacteriennes de la Tuberculose, Congress pour l'etude de la Tuberculose*, 1891.

4. Kitasato *Zeitschrift für Hygiene, Bd.* XI., p. 441.

5. Cornet. *Mischinfection der Lungen Tuberculose. Wiener Med. Wochenschrift, S.* 19–20, 1892.

junction with the tubercle bacillus, a rich addition of streptococci and staphylococci, less frequently bacilli. The first two, streptococci and staphylococci, are the most important from a pathogenic standpoint. Ortner,[1] after considerable observation in a series of cases of pulmonary tuberculosis, associated with pneumonic processes, concludes that there are two pathologic processes in pulmonary tuberculosis,—one leading to the formation of tubercle, the other giving rise to pneumonic infiltration.

These, he claims, differ both histologically and etiologically, tubercle causing the tubercle bacillus, the pneumococci causing the diffuse pneumonic changes. This may be and probably is a too positive statement, for the observation and experiments of Baumgarten,[2] Fränkel[3] and Troje, as well as Prudden,[4] prove, as already stated above, that the tubercle bacillus alone may cause a broncho-pneumonia, cheesy degeneration and other changes of an exudative and productive character.

It is interesting to note the arguments which Fränkel and Troje advance against the assumption that a mixed infection is instrumental in causing the pneumonic infiltration in these cases of pulmonary tuberculosis. The fact that the presence of other germs than the tubercle bacillus are found in the sputum, prompts the statement that the disease-producing agents are likely to be added to the sputum from the mouth, where, even in healthy individuals, pneumococci are present. The authors just quoted insist upon culture experiments as yielding the only conclusive proof of the pathogenic importance of these micrococci. They lay great stress upon the importance of distant tuberculous pneumonias and other pulmonary changes as being a direct result of the action of a diffusible poison elaborated by the tubercle bacillus. The recent experiments of Prudden in this connection confirm my original statement regarding the direct action of the tubercle bacillus. On the other hand, the conclusion is justified that an exudative pneumonia of varying extent and of extreme significance may occur in lungs which are the seat of tuberculous disease, as the result of secondary infection with other germs. (Prudden, Birch-Hirschfeld, Cornet, etc.)

You will bear with me while I call to your attention the leading features of the various forms of mixed infection as I have

1. Ortner. *Die Lungen Tuberculose als Mischinfection. Wien*, 1893.
2. Baumgarten. *Zeitschrift Klin. Medizin, Bd.* X., 1885.
3. Fränkel and Troje. *Zeitschrift für Klin. Medizin, Bd.* XXIV., *Heft* 1, 2, 3, 4, 1893.
4. Prudden. New York *Medical Journal*, July 7, 1894.

chanced to meet them at the bedside, in association with pulmonary tuberculosis.

I will classify the cases as follows :

1. Cases of acute fibrinous pneumonia, in which the disease attacks an area of lung tissue, the greater part of which is the seat of infiltrating, but latent, tuberculosis. The previous history includes, as a rule, disease in a distant organ, from which pulmonary tuberculosis took its origin or with which it was coincident. The latent pulmonary deposit, as a rule, did not give rise to subjective symptoms before the advent of the acute pneumonia.

2. (*a*) Cases in which there is an acute croupous or catarrhal pneumonia in the immediate vicinity of tuberculous areas, the latter previously recognized, with changes in the infiltrated areas, usually at the apex ; the fibrinous disease running its course and terminating by crisis or lysis. The disease is not associated with hemoptysis as a prodromal or initial symptom. (*b*) Cases of chronic or subacute pulmonary tuberculosis in which acute catarrhal or croupous pneumonia attacks distant areas of the diseased or opposite lung, in which there is no early hemoptysis, but the tuberculous process is actively progressive, with physical signs of beginning or already completed disorganization.

3. Cases which may be called streptococcus pneumonia, in which the disease is added to either a latent or active pulmonary tuberculosis. Hemoptysis is present, usually, during the early stage of the acute exacerbation or immediately precedes the pneumonia. Here the complication depends largely upon the aspiration of infecting agents from the seat of the original infiltration and ultimate disorganization.

4. Cases of acute broncho-pneumonia, occasionally fibrinous, concurrent bacillary infection, where, as a result of lowered vitality, resulting usually from child-bearing, alcoholism, or unfavorable environment, there is in a comparatively short time rapid disorganization of lung tissue, ultimate cheesy infiltration, with the clinical evidences of coagulation necrosis, hectic fever and death.

The most unique and at the same time surprising cases of mixed infection which have come to my notice, are those in which there has been no suspicion of existing pulmonary tuberculosis antedating the accompanying pneumonia. There were no lung symptoms until the violent outbreak of croupous disease, and in no case which I have seen had the physician been consulted to prescribe for the patient or examine the lung physically. The general

appearance of the patient had, in many cases, been so good that during the early days of the acute pneumonia no suspicion of the true state of affairs was entertained, and not until it became plain that the pneumonia was not following a typical course and bacteriological examinations were made, were the facts established which made it positive that we were dealing with mixed infection. In the majority of these cases the added element gave rise to a croupous pneumonia, which involved the area of latent disease and the tissues immediately adjacent to it.

While there are in many of these cases no subjective complaints or objective symptoms of pulmonary tuberculosis before the appearance of pneumonia, careful inquiry and a thorough search reveal the fact that there have been foci in distant organs, from which, in the light of later developments, pulmonary tuberculosis proceeded, or with which it was originally closely related. Many of these patients have good family histories, while their records strengthen the conclusion that lung tuberculosis may be present, but dormant, awaiting the advent of some depressing agent or added pulmonary disturbance. In other words, lower by the addition of the second germ the resisting power of the patient who has an unsuspected tuberculosis, and, as a rule, the result will be tissue disorganization and consequent progression of the original disease. I know that this conclusion is contrary to the belief of many who attribute to mixed infection little influence on latent tuberculosis, and who prognosticate favorably in cases of this class, but I give it as being in accord with my own clinical experience. The following case, hurriedly recited, exemplifies very clearly and I think with sufficient data the truth of the statements made, and gives positive proof of the fact, that croupous pneumonia can attack lung tissue the seat of tubercular disease:

E. C. A., male, merchant, aged 36, denies specific disease; was seen first on June 21, 1892. His family history was negative, father and mother both living, in good health; nowhere in the patient's family has there ever been anything like tuberculous disease; in fact, there had been no deaths in patient's immediate family. The patient was an intelligent man who had lived an exemplary life, was temperate in the true sense of the word, had never had any but the usual diseases of childhood. Since adolescence, had been well until about April, 1891, when after a number of weeks of pain and swelling in the right ischio-rectal fossa, a physician was consulted and found him suffering from an ischio-rectal abscess, for which an operation was ultimately performed, when the surgeon pronounced the disease tubercular. After four weeks the

abscess and sinuses were completely healed, and patient appeared well. He resumed his position, which was one of great responsibility and care. His wife, an acute observer, unusually watchful, having abundant opportunity to note the advent of disease and symptoms if there were any, says that there was nothing so far as she could detect to cause her or her husband to believe that he was not in perfect health. After the healing of the abscess until the advent of the disease for which I was now consulted, the patient had never coughed nor had any respiratory disease or symptoms of which he was conscious, prior to June 19, 1892, or about twenty-four hours before my connection with the case. In fact, after the operation for the fistula and until the day when his acute symptoms commenced, he had gained in weight and strength believing himself all the time to be, as he said, "sound as a bullet." On June 19th, he was suddenly seized with a severe chill, pain in the upper regions of the right lung on inspiration, and a cough, which, when I saw him, was accompanied with a light yellow viscid expectoration. Immediately after his chill he had, as he expressed it, "a raging fever." When I saw him at 11 o'clock in the evening of the second day of his illness, I found him an able-bodied man, well nourished, with face flushed, skin dry, and temperature, 104°; pulse, 110°; respiration, 38–42. Examination of chest showed flatness marked at the right apex, losing itself in a small area of dulness below and final normal resonance. Careful percussion gave a normal percussion note over all parts of both lungs with the exception of the right infra and supra clavicular regions. At the right apex there was increased vocal fremitus. Auscultation elicited bronchial breathing, crepitant râles in abundance over area of dulness and flatness. There was also bronchophony. In short, we had in this case all the signs and symptoms of an acute croupous pneumonia of the right apex with a flatness so absolute, in conjunction with the unusual seat of the disease, as to give rise to suspicion sufficient to call for great care in the process of differentiation. Therefore, with a rusty expectoration on the second day of my attendance, a careful bacteriological examination of the sputum was made for both tubercle bacilli and pneumococci. The result of the examination with the microscope was positive. There were abundant pneumococci of Fränkel and Friedlander, with fields rich in streptococci, but no tubercle bacilli. Until the seventh day the clinical course corresponded in every respect with that of an ordinary croupous pneumonia, though the absolute flatness persisted unchanged. On the sixth day of my attendance the temperature fell to 99° F., with a profuse perspiration, remaining between that figure and 101° F. all day. On the following day, though the temperature reached 101°, there was no increase in the physical signs; the symptoms approximated those of the end stage of croupous pneumonia with, however, a persistence of bronchial breath-

ing and small râles. After this day the temperature never again returned to the normal, there were large and coarse râles disseminated over both lungs, without much change in breath sounds or percussion note. The right apex failed to give satisfactory evidence of resolution. The sputum, still occasionally tinged with blood, was fast becoming purulent. Prompted by the persistent flatness and continued temperature ranging from 102–103° F., repeated microscopic examinations were made from day to day, when it was found that we were not only dealing with an acute croupous pneumonia, as shown by the presence of pneumococci, but there were now isolated tubercle bacilli to be found throughout the field. As the disease made advances it was evident that the lung tissue at the right apex was undergoing disorganization; small cavities had formed before the twentieth day. The patient on August 1st was turned over to Dr. Loomis, as I left for my vacation, when we were both satisfied that he was fast progressing toward the end, as the result of infiltrating tuberculosis and tubercular pneumonia.

This latter diagnosis we made at this stage owing to the fact that the microscope justified it, as did the symptoms also. On my return from Europe early in October, the patient was still alive, but disorganization had taken place in both lungs, the right apex was completely converted into cavities, while he had every appearance of the last stage of acute phthisis. His death followed about fifteen weeks after the beginning of the illness. We were unable to get an autopsy. This is indeed a unique and instructive case, in which there are many points of great practical value and interest.

The points of interest are:

1. The preceding tuberculosis of the ischio-rectal fossa.
2. The long period of perfect health following the abscess without subjective symptoms of lung involvement.
3. The undoubted croupous pneumonia of the right apex in an area of lung tissue, evidently flat as the result of latent tuberculous disease, the presence of such absolute flatness arousing suspicion.
4. The positive diagnosis of croupous pneumonia made as a result of microscopic examination; with an unusually clean history of the disease.
5. The evident termination of the pneumonia by crisis on the sixth day, and the ultimate return of the fever with evidences of tuberculous disease.
6. The absence of the tubercle bacilli until disorganization of degeneration of the infiltrate had taken place.
7. The evidences of streptococcus and tuberculous pneumonia

after the croupous pneumonia had run its course, with changes in both lungs of a rapidly destructive character.

In this case our combined methods of physical and bacteriological examination made it clear that we were dealing with a croupous pneumonia which attacked an area of lung tissue already the seat of a latent and infiltrating tuberculosis. Whether this undetected tuberculous herd antedated the ischio-rectal infection, was cöincident with it, or resulted from it as a secondary infection, no one will attempt to establish. The croupus process, thoroughly typical and characteristic, certainly had a material influence in lighting the dormant tuberculous infection with which it was concurrent into activity.

Kinnicut[1] reported a similar case in 1894, commenting on its unique character. I have found that many authorities admit the possibility of such concurrent infection with latent tuberculosis. The differential diagnosis in such cases of mixed infection as the one just described, is ofttimes difficult and many authors claim almost impossible to make. This is particularly true of cheesy tuberculous pneumonia. Traube, whom I have already quoted, taught that tuberculous pneumonia is not ushered in with decided chills, while, as in our case, croupous pneumonia, when concurrent with latent pulmonary tuberculosis, begins with the severe chill of the ordinary uncomplicated disease.

In these cases of croupous pneumonia, bronchial breathing is an early symptom, while in acute cheesy pneumonia it comes on late. The crepitant râles of fibrinous concurrent pneumonia are as characteristic as are those of the unmixed cases. The presence of absolute flatness early in the disease, with an anomalous seat of the croupous process, must excite suspicion, though only in association with other symptoms. The return of persistent fever after the fall of the temperature as in crisis or lysis, must at once lead the clinician to conclude that there is an unusual complication, and in all probability tuberculosis is co-present. With symptoms of croupous pneumonia in any part of the lung and persistent fever, without the fall of the crisis or lysis, after from seven to ten days, the chances strongly favor the diagnosis of tuberculous pneumonia.

I firmly believe, as the result of a considerable experience with all forms of tuberculosis, that the failure to find tubercle bacilli in the sputum or secretions does not justify us in concluding that the disease is not tuberculosis. Patients without ulceration may yet

1. Kinnicut. *Medical Record*, October 11, 1894.

have far-reaching infiltrating or disseminated miliary tuberculosis and no bacilli in the sputum or bronchi. Such cases of miliary tuberculosis are frequent. Not until the cheesy infiltrate undergoes disorganization are we likely to find tubercle bacilli in the sputum. Bacteriological investigations revealing the presence of characteristic bacterial contamination, as in the case reported, make the diagnosis positive. It is necessary in these cases to make repeated bacteriological examinations.

The centrifuge must serve as a valuable adjuvant and will aid in clearing many of the doubtful cases.

The presence of pus and fibrine in conjunction with pneumococci, or even staphylococci, must lead at once to the conclusion that we are not dealing with an ordinary uncomplicated cheesy pneumonia. The clinician who depends for a positive diagnosis in cases of concurrent infection on subjective symptoms and physical signs alone, will make only uncertain diagnoses. Careful examination of the sputum, with a consideration of all that the case offers, from day to day, can alone interpret the true meaning of the symptoms of acute infection.

2. In the second type of mixed infection which I am attempting to establish, the previous history with physical signs and bacteriological examinations make positive the presence of a moderately active pulmonary tuberculosis or a latent infection with well-marked but limited changes in the lung. As a rule there are small cavities, and these either at the apex or near it. Most of these patients have consulted the physician before the advent of added infection, and in almost all tubercle bacilli were demonstrated with more or less cough before the acute exacerbation. The general condition early in some of these cases is not bad. There is no hemoptysis early in the acute disease, neither is the latter connected in any way with the ultimate pneumonia. The concurrent infection shows itself usually with well-marked acute symptoms. A more or less severe chill ushers in the disease, cough follows with characteristic rusty sputum containing not only tubercle bacilli but also pneumococci of Fränkel and Friedlander, streptococci and staphylococci, with pus fibrin or epithelial elements and occasional elastic fibers, varying according to the character of the inflammation. Following the chill there is a temperature which continues between 102° and 104° F., until about the sixth or seventh day, when there is a decided abatement of all the acute symptoms, or the temperature may gradually fall

as in lysis to remain at about the level held before the complication. The added physical signs are characteristic either of lobar or lobular pneumonia.

2. (*a*) The process is most likely to be active in the previously healthy tissue immediately surrounding the old tuberculous deposit if the changes are limited or latent, or if there be only moderate disorganization of lung tissue. (*b*) If the preceding tuberculosis has been of a chronic or sub-acute character, and there is an active and progressive degeneration with considerable cavity formation, the acute exacerbation will attack, as a rule, the more dependent parts of the involved or healthy lung by the aspiration of infecting material from the seat of the original deposit or cavity.

In the cases belonging to subdivision *a* of this class, the pneumonic process may lead to a crisis or terminate by lysis ; the involved area of lung tissue becoming normal, the tuberculous process is but little influenced by the concurrent pneumonia.

On the other hand, in the cases belonging to subdivision *b* of this class, in which the acute changes are distant from the original seat of the tuberculous disease, the disease is either from the first a cheesy or tuberculous pneumonia or becomes so before the process has continued for any length of time. Disorganization is rapid ; the end is materially hastened by the complication of added infection. The microscopic picture in this class of cases is convincing.

3. In the majority of cases belonging to this class, the previous history will establish the fact that there has been either a latent tuberculosis with or without marked evidences of disorganization and cavity formation, a cheesy infiltrate which has not yet led to advanced tissue change, a central cavity, the walls of which may be guarded by a fibrous coat holding pure pus, a bloody serum with few shreds of necrotic tissue, or the disease may be in an actively progressive stage with rapid melting away of lung substance. With such changes, and the usual symptoms accompanying, tubercle bacilli abundantly present in the sputum, there is a sudden profuse hemoptysis, the temperature is in the course of from twenty-four to forty-eight hours elevated from one to three degrees above the level of that preceding the hemorrhage, the pulse is correspondingly accelerated, while the physical signs, rather tardily, give evidence of an acute broncho-pneumonia in parts distant from the seat of the original tuberculous deposit. In these cases there are usually only the evidences of a catarrhal

process disseminated, with crepitant râles, a modified tympanitic dulness, but sometimes no change in percussion note. There is great dyspnea early after the hemorrhage. The fever is likely to rise with increasing evidences of cerebral involvement and profound infection, hemoptysis continues as a rule, with increasing weakness, death ending the scene within from seven to ten days after the beginning of the acute symptoms.

This may be the course of cases in which the patient to all appearances was in perfect health before the hemoptysis, and in which tuberculosis had never been suspected.

Not all cases of this class end with such acute symptoms or with evidences of such profound infection. It has not infrequently happened in my experience that the acute inflammatory changes in distant parts of the lung undergo absorption, and the patient, after the acute stage has passed, remains with the latent deposit or cavity unchanged. Our cases are less likely to have such persistent hemoptysis as was present in the cases reported by Baumler.[1]

Microscopic examination of the sputum and blood in these cases must be repeatedly made, when it will be found that the blood which has been aspirated into distant parts of the lung carries with it bacterial life, a preponderance of staphylococci and streptococci; tubercle bacilli, though present, are not in the ascendancy. It is this contamination from an original tuberculous focus, with the added elements capable of producing inflammatory and tissue changes, characteristic of lobar or lobular pneumonia, which is so often present after hemoptysis. (Birch-Hirschfeld,[2] Ziegler,[3] Cornet.[4])

The question of whether hemoptysis *per se* leads to tuberculosis, unless it be of tuberculous origin, is one which the bacteriologists of today, aided by the methods of precision which can be employed by every painstaking clinician, can answer without hesitation. It may be accepted as true, that hemoptysis associated with other symptoms of disturbed pulmonary function is of tuberculous origin, that when it is followed by phthisis immediately, it is originally an expression of existing tuberculous disorganization. In these cases of mixed infection which we are considering, where

1. Baumler. L. C., 1893.

2. Birch-Hirschfeld. *Lehrbuch der Pathologischer Anatomie, 3te Auflage, Leipzig,* 1887, *Bd.* II., p. 449.

3. Ziegler. *Lehrbuch der Allgemeine und Special Pathologische Anatomie, 7te Auflage,* Jena, 1892. *Bd.* 14, *S.* 697.

4. Cornet. *Ueber Mischinfection der Lungen Tuberculose.* XI. *Congress für Innere Medizin Verhandlungen,* p. 425.

added contamination is positive, and there is ultimately a second latent period of the disease, it becomes of the greatest practical importance to act promptly upon the theory that all forms of hemoptysis, not traumatic or associated with disease of the heart or large vessels, are tubercular. Inability to detect physical signs of a convincing character need not interfere with the safer conclusion, for if it be incorrect, it will be so only in very exceptional cases.

The benefit which will accrue to suffering humanity from such reasoning, with the rational therapeutic deductions following, can only be estimated when we consider the number of cases in which hemoptysis is one of the earliest symptoms of tubercular disease. The rapidly ending cases formerly included under the head of "Phthisis ab hemoptoe" were undoubtedly examples of mixed infection with lobar or lobular pneumonia and ultimate cheesy degeneration of original tuberculous herds.

4. In this, the last class to which I call your attention, there may be a clear history of previous active pulmonary tuberculosis which has become stationary or latent for a time, or, as happens in some of these cases, there may have been the previous history of a circumscribed pulmonary tuberculosis, with an ultimate pleurisy or empyema, after which the lung disease is held for a time in abeyance. The renewal of symptoms follows upon general depression or lowered vitality, ofttimes associated with child-birth, excesses of any kind, particularly in the use of alcohol and unfavorable environment. The clinical picture, during the early days of the concurrent disease, is that of an acute broncho-pneumonia, rarely fibrinous, while the number of attending symptoms and physical signs are usually characteristic of the uncomplicated non-tuberculous disease. The rapidity with which islands of lung tissue are involved in this broncho-pneumonic process is surprising, while the exhaustion of the patient is considerably unique. The pulse, particularly in women, with this complication at once becomes rapid and remains so during the entire course of the disease. The temperature is, as a rule, but little below 103° F., and usually above that point, while after the fourth or fifth day of the disease there are occasional morning remissions with evening exacerbations and profuse perspiration during the night.

When this stage is reached, it soon becomes evident, as a rule, that the disease is not to terminate with the broncho-pneumonia, for the tuberculous process is likely to gain the ascendancy, and

the case becomes one of acute phthisis, terminating with all the clinical evidences of tissue disorganization and disseminated tuberculosis. In not a few cases the broncho-pneumonia is cleared, while the lung tissue originally involved in the tuberculous process at once shows the changes characteristic of acute consumption. The sputum does not always show tubercle bacilli until the acute broncho-pneumonia has continued for a few days. The predominating bacteria of the first few days of the disease are streptococci-staphylococci, with Friedlander pneumococci.

The Fränkel pneumococci is not usually present.

After the seventh day the tubercle bacillus is found with ease. The centrifugalized sputum during the early days has failed, as a rule, unless the tubercular process was active at the time of the broncho-pneumonia to show more than an occasional tubercle bacillus. It would be only natural to conclude that the acute pneumonia results in these cases from the co-presence of the bacteria above mentioned, in the tuberculous area and their ultimate dissemination to distant parts of both lungs by aspiration or through the usual vascular channels. But few of the cases fall back into a latent stage, as most patients die in the course of a few weeks or months.

## CONCLUSIONS.

1. Tubercle bacilli can, without the presence of added bacterial infection, cause changes in the lung, giving rise to symptoms of acute pneumonia in chronic or latent phthisis, which cannot be differentiated without bacteriological examination from non-tuberculous pneumonia.

2. Concurrent infection in tubercular phthisis modifies very materially the course of the disease, giving rise to many acute exacerbations and anatomical changes, hence the conclusion is justified that the clinical picture of the disease is, as a rule, complex. The double infection must be taken into account when indications for treatment are considered.

3. An acute croupous pneumonia can attack lung tissue, the seat of tubercular infiltration, or run its course in any part of the healthy or diseased lung. As a rule, the tuberculosis, if latent, is lighted into activity.

4. Aspiration from cavities of streptococci and other bacteria may give rise to acute pneumonia. This may be termed streptococcus pneumonia. Early and profuse hemoptysis is present in the majority of these cases.

5. Mixed infection in pulmonary tuberculosis is an important factor in lowering vitality and the resistance of the patient; all septic and pyemic processes arising in the course of tuberculous disease, may be traced to it.

6. The differential diagnosis of tuberculous pneumonia is oftimes made with great difficulty. In all cases, bacteriological examination must be made repeatedly and culture experiments add to the refinement of such diagnoses.

Without repeated microscopic and bacteriological examination the physician must fail to interpret the pathological significance of the innumerable exacerbations of pulmonary tuberculosis. With such examinations repeatedly and conscientiously made, he will learn to recognize early the importance of mixed infection, and by immediate action, will be able to prolong the lives of these unfortunate patients, while in not a few cases ultimate cure will reward his efforts.

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# Original Communication.

## AMBULATORY TREATMENT IN FRACTURES OF THE LOWER EXTREMITIES.[1]

By M. HARTWIG, M. D.

Whilst the German literature of the day is teeming with articles about this subject, the English, readily accessible to me, is silent. It is certainly to the scientific mind not an object of prime interest, but to the patient. Our duty is not only to prevent death and suffering, but wherever we can to even provide for luxurious comforts of our patients. Such certainly is the possibility to walk around with a broken leg or thigh. Nay, more; in the aged let us say, with a fracture high up, for example of the neck of the femur which may require three months' treatment, it is life-saving to have an appliance which permits walking, because it prevents the death-dealing hypostatic pneumonia.

Thus, the object is worthy of consideration without being a novelty, and we can understand the glowing expression of thanks bestowed by the well-known clinician, Professor Juergensen, upon Mr. Hessing, when the former broke his thigh and the latter enabled him to perambulate in the garden with his fracture.

1. Read at the Surgical Section, Buffalo Academy of Medicine, October 2, 1894.

Here is one of the exceptional cases in the history of medicine where a layman distinctly promoted the art of healing, and it is an honor to the profession that the man found his acknowledgments. The name of this instrument-maker will remain honored in the annals of medicine. That there is nothing new under the sun remains true in philosophy, but never in the realm of natural science, and even if a scrupulous search in the annals of medicine should disclose that somebody walked with a broken leg (and I have no time to institute such a search today), Hessing's work will remain a new blessing to suffering mankind—the principle he probably caught in making Taylor's splint for hip-joint disease.

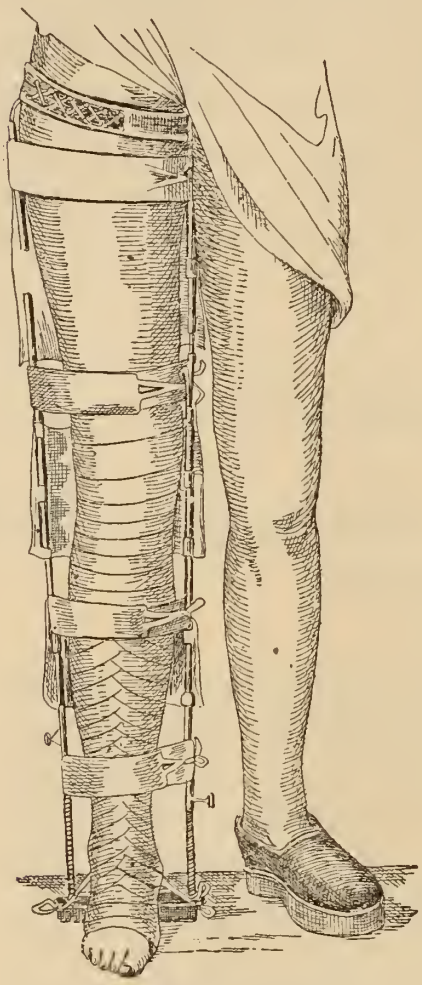

FIG. Ambulatory Splint.

Herewith almost the whole of it is said. The patient sits on the tuber schii which forms the point of counter-extension, while the extension is on the foot toward a crossbar on the sole of the apparatus. The sole of the other leg is raised by a cork nailed to the shoe. Bruns modified the apparatus by making it extensible from 52 to 72 cm. for children, and from 72 to 92 for men. W. Benerle, in Tübingen, furnishes the large size for 23 marks, weighing only a little over two pounds. (See Fig.)

Frequently counter-extension is unnecessary, the weight of the leg being sufficient. Within the apparatus, of which I hand you a self-explanatory picture, the place of the fracture, and, to some extent, above and below is encircled by a very light plaster cast laid upon the bare, oiled and shaved skin.

My quondam friend Albers, staff physician of the Prussian army, has obtained the same result by plaster casts alone, which he makes so deftly and strong as to carry the body without breaking, and without being to weighty, by combining the plaster with glue and tough woodstrips, and including the hip up to the crista ilei. The plaster casts, in order to fit snugly, have to be

applied after the original swelling has subsided. Thus, about a week after the fracture occurred, the patient walks on the cast. It projects beyond the sole of the foot and has a space between it and the sole. The same apparatus is used successfully by Bruns for resection of the knee. The gentle physiological stimulus of walking has been far from preventing solid union; the reverse, in fact, seems to be true, as ununited fractures left after such treatment have not been reported yet—not to my knowledge at least.

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# Society Proceedings.

## TRANSACTIONS AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

*Seventh Annual Meeting, Toronto, September 19, 20, 21, 1894.*

(Abstract.)

[*From American Journal of Obstetrics, November, 1894.*]

### APPENDICITIS.

First Day—Afternoon Session.

Dr. George S. Peck, of Youngstown, O., read a paper entitled

APPENDICITIS: REPORT OF SEVEN CASES SURGICALLY TREATED, FOUR OF WHICH WERE OPERATED IN THIRTY-SEVEN CONSECUTIVE HOURS.

Case I.—Operation during interval between attacks. Obstruction on the 6th of July. Did second operation. Operation July 27, 1894, appendix buried in mass of strong adhesions between ileum and cecum containing a large fecal concretion. Appendix removed in segments. Ileum returned to the abdominal cavity. During the first six days highest temperature, 100°; pulse, 100. On the fifth day four attacks of vomiting, the fourth containing fecal matter. At 2 A. M., August 4th, reopened the incision and found about three feet from the ileo-cecal valve complete obstruction by a band of dense adhesions. Obstruction liberated; ileum brought out in the incision and abdominal cavity packed with gauze. Put patient to bed at 5 A. M.; pulse, 124; external heat applied and hypodermics of strychnia and digitaline every two hours. During the entire day of August 1st pulse ranged from 140 to 160; vomiting of fecal matter continued at frequent intervals; tympanites increasing. Seven P. M., symptoms of obstruction continued, becoming worse every hour. As a temporary expedient, made a small opening in the ileum; fecal matter and flatus came away in large amount, vomiting ceased, and tympanites entirely disappeared. From

August 2d to the 14th, pulse ranged from 104 to 118; passed a large amount of fecal matter through artificial anus. From August 1st to the 11th passed flatus per rectum but twice, very small quantity each time. August 11th passed well-formed fecal matter per rectum first time since operation. On the 19th day the temperature commenced to rise, and there was considerable fluctuation up to the 51st day, when it became normal and so continued. On the 28th day an unsuccessful attempt to close the fecal fistula was made; a second unsuccessful attempt was made on the 35th day. From the 13th day to the present time she has had from one to three daily passages per rectum; sat up for the first time on the 33d day, walked about the room on the 38th, and out doors every day since September 3d. Discharged from hospital on the 55th day after first operation; fistula closed.

Case II.—Operation during 4th day of first attack. Large appendix removed, containing two drams of pus and a fecal concretion. Adhesions broken up, and incision packed with iodoform gauze. Uninterrupted recovery. Discharged from hospital on the 28th day after operation.

Case III.—Operation 3d day of the third attack. Peritoneal cavity opened and adhesions broken up; large appendix removed. Uninterrupted recovery; discharged on the 27th day after operation.

Case IV.—Operation during 10th day. Death from septic peritonitis in sixty-five hours. Large abscess cavity evacuated; appendix gangrenous and detached; washed out by irrigation. Autopsy four hours after death, revealed general septic peritonitis.

Case V.—Perforating appendicitis. Operation during 3d day of attack. Death from septic peritonitis in twenty-seven hours thereafter. Appendix perforated twenty-eight hours before operation. Second operation twenty-four hours later. Median incision, obstruction removed; died from shock half an hour after operation. Autopsy immediately after death revealed extensive peritonitis with pus sac deep in the pelvis and recto-vesical pouch, containing a pint of pus.

Case VI.—Operation 4th day of attack. Death in four hours after operation from shock and septic peritonitis; appendix gangrenous throughout its entire length. Autopsy six hours after death revealed extensive general septic peritonitis.

Case VII.—Operation. Median incision; small intestines adherent to parietal peritoneum and matted together. Adhesions broken up; ileum matted together and when separated measured three feet. In liberating adhesions ileum torn in two about fifteen inches from ileo-cecal valve. End to end anastomosis by Murphy button. All adhesions liberated; appendix not found; thorough irrigation. Patient put to bed with a pulse of 150. Passed flatus in twelve hours; bowels moved freely on the afternoon of the second day. Beginning with the 4th day temperature normal, and pulse 96.

## APPENDICITIS WITH OBSERVATIONS BASED ON A CLINICAL STUDY OF EIGHTY-FOUR CASES.

This was the title of a paper read by Dr. W. G. Macdonald, of Albany, N. Y. The author said that every department of abdominal surgery has its evolutionary period. The surgery of the right iliac fossa following the rule, is now drawing to the close of that period. Out of the great amount of literature, controversial and otherwise, three important landmarks are established :

1. That for all practical purposes all inflammatory processes in the right iliac fossa arise from the vermiform appendix.

2. That practically the vermiform appendix is always intraperitoneal, and that any operation undertaken for appendicitis that does not involve the entering of the peritoneum is false in its surgical conception.

3. That idiopathic peritonitis does not occur. That many cases diagnosticated as such, are really cases of perforating appendicitis.

From a careful consideration of pathological conditions and clinical histories, appendicitis may be classified in the following varieties:

1. Acute perforating, fulminating appendicitis with general peritonitis.

2. Acute suppurating appendicitis with local plastic peritonitis and abscess.

3. Subacute appendicitis, variously termed catarrhal, chronic, relapsing or obliterating appendicitis or appendicular colic (Talman).

It is not claimed that pathologically these conditions are absolutely distinct. Quite the contrary is true, but that the type is determined by the amount of bacteriological invasion and the degree of immunity possessed by the patient. That perforation occurs very much earlier than is commonly believed, can be demonstrated by many clinical histories and early operations. It may mark the onset of the disease. That the prognosis in acute perforating appendicitis, with or without operation, is always grave; that operations undertaken while perforation is impending, but has not occurred, are followed by fatal results by extension of inflammation in many cases; that acute suppurative appendicitis with local peritonitis presents the most favorable field for operation during the attack, are well-demonstrated observations. The

removal of the appendix is to be undertaken with great circumspection when it lies in the wall of an abscess cavity.

The third group of cases do not require operation during the first attack, but if repeated attacks occur, operation during quiescence is demanded. Operative results in these cases are most favorable.

Errors in diagnosis are yet common, and arise from two causes—namely, carelessness in treating abdominal diseases without physical examination; and mistaken pathological notions.

The profession has awakened, and neglected cases are much less common than formerly. That, in the future, cases will be seen and operated upon earlier, and the results will be correspondingly improved is believed.

Dr. Joseph Hoffman, of Philadelphia, followed with a paper entitled

### PUS IN THE PELVIS WITH A SPECIAL REFERENCE TO APPENDICITIS AND ITS TREATMENT.

He said pus in the abdominal and pelvic cavities has been treated and considered with far more leniency than pus anywhere else in the human economy. It is the tramp manifestation of all disease. Like death, it has all times and seasons and places for its own, and too often like sleep is the twin sister of death.

Other diseases and disorders have manifestations peculiar to themselves, but pus may be the product or resultant of every disease, broadly speaking. It was long before this was a recognized fact in reference to the abdominal cavity. Women died with pints of pus bathing their viscera without its presence ever having been suspected, and idiopathic peritonitis held sovereign sway in death certificates and pathology. Once it was discovered that pus might get into the abdominal and pelvic cavities, then the wise men in physic began to discover reasons why it ought to get out of itself, just as it got in, and the let-alone doctrine held sway, with opium and poultices for its viceroys.

If there is pus in the liver we are often left to surmise it, though the exploring needle is a safe means of diagnosis. But the general manifestations of pus are not to be considered except incidentally in this contribution, and we will consider briefly the various organs in which pus makes its appearance. In the order of its probable frequency may be mentioned the kidneys, appendix vermiformis, tubes and ovaries, liver, pancreas and spleen.

In the kidneys its symptomatology is different according to the cause. If from a stone in the pelvis of the organ, the usual manifestations of pain and renal colic are present previous to suppuration, while if the origin is from the urinary tract by the transmission of purulent matter up through the bladder along the ureters, at last reaching the kidney, there is a previous history either of general disease, cystitis from some cause, enlarged prostate with retention, or chronic cystitis from stone and suppuration. Either one of these causes has a perfectly distinct history, and the treatment, with the exception of the removal of the stone from the kidney, is identical.

If an abscess goes on to rupture into the peritoneal cavity, operation can only give the slightest chance of success when done at once. So also into the other cavities, the pleura and pericardium. It must also be remembered that abscess of the liver may simulate the same disease of the kidney, and that the disease of the latter organ has been mistaken for that of the former. The presence of abscess of the spleen, as well as of the pancreas, is so rare that diagnostic features are wanting except in a general way. The nature of the organs is such that when abscess is present, it must soon make its way into the peritoneal cavity, and then from the symptoms of peritonitis as they exist under other circumstances, operation will be indicated and begun most probably as exploratory, and end with the removal of the offending organ. Pus as a foreign element is most common in the pelvic organs. Appendicitis is a most frequent cause of the trouble, and alongside of tubal and ovarian diseases it is the most prolific of causes. The diagnosis of pus as a concomitant of appendicitis is not always an easy matter.

The history of cases is that where one case escapes without suppuration, where no effort is made to save the patient, a vast number do not. So it is in recurrent attacks of appendicitis. Those who have most studied the condition, who have watched patients said to have recovered, know that in a great majority of instances they finally go into other hands, and either die in an attack or escape by operation. Operation in these forlorn cases has its justification only in the hope that a saving chance is offered an otherwise necessarily hopeless case.

Considering that the uterus is the starting-point of the pus infection, physicians anticipate the clearing out of the tubes and ovaries when infected by the curetting of the uterus. This idea

is worthy of as little sound consideration, no matter by whom advanced, as the vagaries of a madhouse brain. It has no common sense to originate it, and it has not a surgical argument to support it. If our firemen were to insist on pouring water into a cellar because a conflagration originated there, paying no heed to the spread of the ruin along the roofs from house to house; if they insisted because there was already trouble and a blaze above, they might still add combustibles to the fire in the cellar, we would label them either as incendiaries, or idiots, or madmen. They would be stopped, compelled to lay aside their uniform and get out of the service. The surgical service of a long-suffering race of women needs some such police regulation to protect them from surgery which has no better sense or justification than all this.

The rules to be laid down for the relief of pus in the abdomen are to get at the point of suppuration, the cause and remove it. If this is impossible, as it is in some cases of appendicitis, and the peritoneal cavity is shut off by adhesions, the evacuation of the pus by incision over the abscess is the best procedure to save the life of the patient, and that is all we are after. If the patient is in a condition to find and remove the appendix, so much the better, but the best thing is to work so that life can be saved. In appendicitis we have one of the most trying operations in surgery, for the simple reason that the relation of the parts is not constant, and he who operates expecting to find the appendix, by McBurney's or any other point, will be woefully disappointed. In the presence of pus in the pelvis, apart from the appendix, when the ovaries and tubes are involved, the best operation is by all odds the complete one. Remove the offending organs and these in the great majority of cases can be removed by the experienced hand. If the hand is not experienced, it had better be out of the case. In the presence of hemorrhage, gauze or sponge packing is a valuable aid in controlling the blood. In the presence of pus, gauze packing is to be deprecated unless to shut off the peritoneal cavity from infection. In these cases it is only to be used if we are satisfied that there is more risk without it than with it. Gauze will not drain pus; it will only hold it in.

Treat each case according to the demands it makes and the complications. There is no rule in doing an ideal operation and have the patient dead when it is over. Ideal work is that which gives the best result in the line for which it is done. Surgery of

the abdomen is a work of self-denial, of trial, of unexpected complications and lurking disaster.

Discussion on the above papers was postponed until the evening session.

### First Day—Evening Session.

The discussion of the three papers on appendicitis was proceeded with, the opening remarks being made by Dr. Morris.

Dr. Robert T. Morris, New York: I am not inclined to say much this evening on the subject of appendicitis. Most of you are familiar with what I have said and written on the subject from time to time. I would say, however, that I am opposed to and dislike the classification of cases as men classify them today. Any man of a scientific turn of mind feels grieved over classifications. Most men who have been trying to classify cases of appendicitis have classified them from their ultimate symptoms. I believe appendicitis is an infective, exudative inflammation of the appendix vermiformis. I believe, furthermore, that classifications can be elaborated to the extent of a person's knowledge of the English language, so that eventually the man who is well qualified in the use of this language will have a separate name for each symptom as it appears and can place it as a case of this or that sort. There is no natural elaborate classification of this disease, but simply an artificial one that each man will present for adoption, but it will not be adopted eventually by others because it is artificial.

*Mistakes in diagnosis.* I think men who are engaged in making diagnoses of appendicitis very seldom made a mistake. I have had occasion, as most of you know, to see a great many cases of this disease and have removed a good many appendices, and though I do not profess to have more diagnostic acumen than my *confrères*, I yet have been misled in one case of tuberculosis of the appendix, and in another of carcinoma of the appendix in which a year or two after an attack of typhoid fever I removed a normal appendix from among adhesions which I believe had been caused by chronic appendicitis. These are the only cases in which I have been deceived, and I think very few men who are accustomed to see these cases will be mistaken except occasionally by a case of tuberculosis or of carcinoma of the appendix, or a case in which we have adhesions from septic disease of the tube or ovary or of other structures.

As to the analysis of foreign bodies, it is quite true we do not find cherry seeds, grape seeds and various other seeds in the lumen of the appendix. I have had a pretty large collection of specimens carefully examined and analyzed, and I find more frequently than anything else calculi consisting of calcium phosphate and a little inspissated fecal matter and fat. The proportion of fat was very great in several of the specimens examined. It is rather difficult to account for this proportion of fat, especially as some of the concretions were large, and as the lumen of the appendix was cut off from the lumen of the cecum; it occurred to me that possibly it may be due to retrograde metamorphosis of the lymphoid cells of the appendix. To determine the amount of fat in the lymphoid coats, it was found that the proportion was 8 and a fraction per cent. Three appendices were examined with small ulcerating spots, and the proportion was 14 per cent. of fat. Three others examined in which the anterior coat was ulcerating, and 26 per cent. of fat was found, showing the very large amount of fat that was being produced by slow ulceration as a result of retrograde change in the lymphoid cells in the chronic ulcerative cases. In a large proportion of cases we found a slow ulcerative process going on, because the tissues were exposed to putrefactive bacteria, to the bacteria of suppuration, not necessarily in the tissues but in the lumen of the appendix.

With reference to the question as to whether we had better separate adhesions, it had better be determined by the operator himself who knows the results following his particular technique. Every man in surgery is a law unto himself. If I were to practise drainage as Dr. Price practises it, I could not obtain the results that he does. But, personally, I separate the adhesions in almost every case of appendicitis upon which I operate. I do this in searching for other collections of pus. I do it to separate loops of bowel held in bad position by adhesions which would strangulate the bowel and to prevent re-adhesion in a bad position. I believe that can be done, but it would be unsafe to teach this. I would not dare to teach it, but I would do it myself. I believe it is the correct thing for us to do.

Dr. Joseph Price, of Philadelphia: The remarks of Dr. Morris on appendicitis to which we have just listened are the best I have ever heard, and his closing remarks are quite sufficient. We may all go home without any further discussion of the subject. I agree with him excepting in one point—namely, that he would not dare

teach what he would do himself in these cases, and to verify and emphasize that point I will simply allude to the statistics of one of the papers. For instance, in speaking of the separation of adhesions and delivering the appendix, or in alluding to the recurrence of cases, the author gives two fatal cases in twenty. That of itself should be a sufficient argument for surgeons to follow the practice advocated by Dr. Morris of completing all operations, removing the cheesy, disorganized appendix, and breaking up all adhesions. I am sorry Dr. Morris does not stand out and insist upon others doing just what he can and does do so successfully.

I will allude very briefly to the carelessness in connection with surgery. A short time ago a patient died in the Pennsylvania Hospital. Dr. Morton insisted upon a section for appendicitis, but several other physicians did not agree with him. At the autopsy, in searching for the appendix a huge abscess was found about it and the appendix was necrotic. Even at post-mortems some practitioners do not find the diseased appendix, and they are at a loss to know what killed their patients. This has been so for many years. I have had a large experience in dealing with recurrent cases of appendicitis that have been recognized as such by a number of intelligent physicians in the Adirondacks, in Europe and at watering places, who insisted upon having the appendices removed. Some of these cases have come to Philadelphia, and I have found the physicians correct in their diagnoses.

Dr. Morris has alluded to foreign bodies, and I am rather inclined to think that the variety of foreign bodies found in the appendix is much greater than is ordinarily supposed. A short time ago a Philadelphia surgeon found a fish-fin in the appendix, and another gentleman found two sugar-coated pills. We know that cases of appendicitis increase about the strawberry and grape season. A few years ago an intelligent gentleman, a man of considerable wealth and leisure, traveled around the world and had twenty-four attacks of the disease in different parts of the world. He was treated by twenty-four or more physicians and by some declared cured, and in the twenty-fifth attack Dr. Agnew removed the appendix, and the man recovered. I presume Dr. Morris has a goodly number of appendices in bottles that have been reported as cured and are still being reported as such before county, state and national medical societies. My brother has had fourteen operations for appendicitis without a death. The disease is common. I have operated twice myself in one physician's family.

Dr. A. H. Cordier, Kansas City, Mo.: It is with some little timidity that I rise to participate in this discussion after hearing the able and interesting remarks of Drs. Morris and Price. I have seen a great deal of the work of Dr. Price and I have done a little of this class of work myself, and must beg leave to differ from them in regard to breaking up adhesions in this locality. I wish to call attention to the fact that there is a great deal of difference between pus found in the appendix and that in the pelvis. If we accept the theory advanced by Dr. Price that the majority of cases of pelvic suppurative diseases are caused by gonorrhea, we must accept the fact that this is a form of poisoning brought about by the gonococcus of Neisser. It does not invade the peritoneum to the same extent, and it is not as dangerous a microörganism as the bacillus coli communis. We have a different septic germ in this locality. If we go to work and break up the adhesions in a case of appendicitis that are walled off, we are sure to have a larger mortality than if we simply make an incision, evacuate the pus, clean out the cavity, and introduce rubber drainage in addition to gauze packing. In these cases it is hard to tell when to go ahead and when to stop. In some cases the appendix will float out with the pus at the time of the operation. My results in operating for cases of appendicitis have been extremely satisfactory to me. Where I find them with walled off abscesses, I simply make an incision, evacuate the pus, and drain as in other localities.

I wish to speak now of the symptom—colic. We pay too little attention to colic occurring in the abdomen. A patient presents himself with colic occurring from year to year, and it is more significant than we are disposed to think. Two weeks ago I operated upon a gentleman for appendicitis, who lost a son three months before from this disease without an operation. He presented a history of having had repeated attacks of colic for eighteen years. He said he had never had an attack of appendicitis to his own knowledge. On the morning of the operation I saw him in consultation with his family physician with a normal temperature and pulse, but pain in the region of the appendix, this attack differing from previous ones. Appendicitis was diagnosticated, the patient was sent to the hospital, and I operated on him the next day. I evacuated fully a teacupful of pus and found a gangrenous appendix.

In regard to foreign bodies, in one case I found a piece of chewing gum; in another a piece of wax, and in a case from Buf-

falo, I found a cherry stone which the patient had swallowed a week or ten days before, that had gotten into the appendix. From the moisture and heat it had swollen and torn a hole into the peritoneum.

Dr. J. B. MURPHY, Chicago: This battle of appendicitis has been contested all along the line. The first thing we had to defend was the presence of pus in these cases. Almost every general practitioner that you discuss the subject of appendicitis with would say "There was no pus in my case. The patient got well." Finally, after careful examination at the post-mortem table, it is practically agreed that in every case of appendicitis there has been, or there is present, pus. What will be the outcome of that pus? You know the way in which Nature performs so-called cures, or takes care of this disease. Every general practitioner will tell you how many cases he has had with recovery. At a meeting in one of our western cities this summer, a practitioner who lived in a hamlet of two or three hundred inhabitants had sixty-two recoveries from appendicitis. They were not of the variety that come under my observation.

A word with regard to the pathology. We agree that some cases get well without operative interference. What cases will you, and what cases will you not, operate on? These are two things we want to settle. What shall we do with a man in his first attack of appendicitis? Shall we wait? That is the question. In his first attack, what happens? He has his first symptom either from a perforation, from an invasion with infection of the mucous membrane, which is the most common, or from an obliteration. The outcome of these three things will be all the pathological conditions that you can possibly imagine almost in the peritoneal cavity. In the early stage, what have you to contend with? By the early stage I mean at the time when the patient has his first symptom. You have a disease at this time that is limited to the cavity of the appendix, while a few days later—many times a few hours—it has no limitations except the peritoneal cavity. What would you do with pus of that dangerous variety anywhere else? Of course, you would cut down, evacuate it, and try to save the life of your patient. When a patient has unmistakable symptoms of appendicitis, not tomorrow, not today, but *now* is the accepted time to operate. The symptoms of the disease are more definite and less liable to mislead the surgeon in the early stage than the symptoms of any one affection I know of, excepting pneumonia. We must not delay operative interference until tomorrow,

but resort to it at once. Whenever you have a patient with a sudden attack of pain in the abdomen, with nausea and vomiting, increased local tenderness over the seat of the appendix, with perhaps a rise of temperature, you may conclude that you have a case of appendicitis to deal with. There are very few conditions in the abdomen resembling that. Indeed, the exceptions are so few that we can lay down a rule except in diseases of women where there has been a previous history of trouble. Even if you have symptoms on that side of the abdomen in a woman, I think the indications are just as great to operate as in the appendix. As soon as you have the symptoms I have mentioned, you should at once proceed to prepare your patient for an operation. It has been stated that I would operate on such and such a case, but that I *would not* operate on this or that case. Let me say here, that there is no man living who can make a differential diagnosis of the pathological conditions that exist inside the abdomen in appendicitis. Take a case tonight with a temperature of 99½°, the abdomen soft, with a pulse of 82, what is in that abdomen? The patient had an attack of pain, nausea and vomiting yesterday morning, which was Saturday we will say, went home and rested a few hours, got up Sunday morning at 8 o'clock, and went to a drug store to get something to relieve the uncomfortable feeling he experienced. He had a temperature after which the doctor came, who saw him for the first time Sunday afternoon at 3 o'clock. A diagnosis of appendicitis was made. That is all there was; no other symptom to guide him. What was the condition of the abdomen? It was full of pus; fecal concretions had escaped from the appendix on Sunday morning and the contents of the appendix with pus into the abdomen. Until you can make a diagnosis and say of this individual case that there is such and such a condition in the abdomen, you have no right to say I will not operate on that case. You have no right to say I will wait until tomorrow; neither have you any right to hold a patient's life in jeopardy when he has unmistakable symptoms of the disease under discussion, but from a considerable experience and the large number of cases I have had, I should unhesitatingly and immediately resort to surgical interference.

Dr. J. Henry Carstens, Detroit: Dr. Murphy has said nearly everything I wanted to say. I perfectly agree with what he has said, but I must differ from Drs. Morris and Price with reference to one point. There are cases where there is no earthly need

of going down and breaking up adhesions, removing the appendix and so on. I am fully in accord with Dr. Cordier's remarks that there is a vast difference between pus from the gonococcus and that which we get from the bacillus coli communis. That is not the only thing; we have sometimes a streptococcus in there.

I desire to emphasize the point brought out by Dr. Murphy, and for which I have been criticised in my own city—namely, that in the present state of our knowledge we cannot always tell whether we have a severe or mild case of appendicitis to deal with. As has been said, ninety-eight times out of every hundred, every case of appendicitis ought to be operated on—not tomorrow, not the next day, but this very minute. If this is done, in the future we will not have statistics giving us thirty-one deaths out of fifty cases, but we will have such statistics as Dr. Morris gives—namely, ninety-eight recoveries out of one hundred operations.

Dr. E. W. Cushing, Boston: I agree fully with what Drs. Murphy and Carstens have said. I simply wish to call attention to one point in Dr. Peck's paper about a secondary operation for freeing the bowel. I would be glad to have this point referred to in the further discussion of the papers, because I think one of the most important things in the whole subject of laparatomy is whether we can do anything for the patient after the operation in relieving bowel obstruction—whether we shall open the abdomen again.

Dr. W. E. B. Davis, Birmingham, Ala.: Reference has been made to purulent peritonitis as being dangerous in connection with appendicitis. We are told that the question in regard to the appendix and tubal disease is settled, and now we are to decide what to do with this affection. I think if there is anything to do, it would be to prevent it. When we get general suppurative peritonitis, it is my opinion that we can do nothing for our patient. We have a local condition of sepsis that will kill the patient, even though we may relieve the general condition; therefore, I think the treatment of purulent peritonitis is preventive. It is the only treatment that we can succeed with. Cases have been reported of suppurative peritonitis; they are not cases of purulent peritonitis, but cases of large abscesses which have ruptured into the cavity, which have been cleaned out before there was peritonitis which could have produced these abscesses in the general cavity.

In regard to breaking up adhesions, I will speak briefly of the treatment of appendicitis. It must be borne in mind that the

most dangerous kind of appendicitis, that produces peritonitis in twelve hours, also produces the same condition that we get in stab wounds of the intestines. You all recognize the fact that you cannot save these cases unless you operate within the first day. After twenty-four hours there is but little hope for the life of the patient from operative interference, so much so that it is unsafe (if the patient is seen after twenty-four hours) to operate; in other words, there is no use in operating. The surgeon should take that position in order to sustain his reputation. We must not expect to save many cases of the dangerous form of appendicitis that require our help. Many of the cases that need our help are cases of fulminating appendicitis, in which death comes from obstruction of the bowels. I am sure it has been the experience of all of you that in the majority of cases in which you are called upon to operate on the bowels, they do not have invagination, but obstruction due to dynamic causes. Paralysis and inflammation of the bowel, not due to obstruction of the bowel from mechanical sources, is not an uncommon thing to meet with. The patients that most need an operation do not call us in time to operate. The cases of appendicitis that we see on the second or third day we can usually save, because the pus is circumscribed. We have the existence of a condition with which the surgeon can deal with the promise of a cure. We ought to operate early, but the fact remains that we can save some of these cases late. The cases that need our services most are the ones we do not see to operate on with any degree of certainty of saving them.

In regard to removing the appendix and breaking up adhesions, I think Drs. Morris and Price have advocated a dangerous practice. They have recommended a system of treatment which will, if adopted, cause many deaths. While it may be successful in careful and skilful hands, in the majority of instances it would be a dangerous procedure. I can conceive of nothing so dangerous as allowing the smallest quantity of this offensive septic pus to escape into the abdomen. In the last year, by gentle manipulation of the abscesses, I have had two secondary abscesses produced by the escape of pus, and the patients came very near dying. If you do not find the appendix by very careful and gentle manipulation, you had better let it alone.

Reference has been made to foreign bodies being very frequent causes of appendicitis at certain times of the year. I think we will find the cause is due more to a catarrhal condition,

brought about by eating too much fruit, than from the seeds themselves.

Dr. A. Vander Veer, Albany, N. Y. : I have been very much interested in the remarks that have been made with regard to appendicitis, as I have done quite a number of operations for this disease. Dr. Peck has placed on record cases that, if we study them carefully, will be of value to us and to him. I have listened to this discussion with a great deal of interest, because I know it will be published in our medical journals and will be taken either one way or the other—as a scientific discussion by men who understand what they are talking about, or else it is to be looked upon as being extreme. We greatly respect the opinion of such men as Drs. Morris and Price, men who are not only scientific in their attainments, but whose results are above that which many of us can reach. As has been remarked by Dr. Davis, I do not believe it is possible to cure septic peritonitis in which we have the bacillus coli communis. We have the perforative and fulminant forms of appendicitis, that go on and are precisely like gunshot or stab wounds. If we could reach these cases early enough, lives might be saved, but how many surgeons reach the patient in time to perform a life-saving operation ? These are the cases that we ought to dwell upon, and talk more about, and instruct the general practitioner, and have him thoroughly educated as to what the symptoms mean.

As to foreign bodies, I do not think this is a matter of so much importance, but fecal concretions are found in a great many cases. I have a number of specimens that I have preserved, but I believe with Dr. Price that at certain periods of the year, during the blackberry and grape season, more cases of the disease are liable to occur. The cecum is filled with seeds. It does not hold impacted feces particularly, but it holds foreign substances in such quantity as to produce irritation of the mucous surface of the appendix, and by extension of the irritative or inflammatory process we meet with a greater number of cases at the time of the year when fruit and certain forms of vegetables are eaten with greater freedom. A word about the cases in which we do not find foreign substances —they are cases of the catarrhal form of the disease. In the process that takes place, the patient is in great danger and we may have a simple form of appendicitis or even perforative appendicitis.

As to the time of operating, I am an advocate of early surgical interference, although I have operated on six cases of relapsing appendicitis without a death.

Dr. Chas. A. L. Reed, Cincinnati: I wish to emphasize one point which has been raised incidentally in the papers and in the discussion. The point is illustrative of some recent cases. I will simply mention one or two. I was called to a town in Kentucky, a few miles below Cincinnati, by an intelligent physician to examine a case that presented a classical history of appendicitis. The doctor had been hesitating about the necessity of an operation, although he recognized there was inflammation about the head of the colon. He concluded it was one of those cases the tendency of which is to recover, and the point upon which he deferred operation is the fact that he was unable to discover McBurney's point. There are a great many members of the profession who believe in McBurney's point; they look for it, and they do not call in a surgeon until they think they can find it. I wish to emphasize the fact that this point must not be looked for. There is no occasion to look for it, and the general practitioner who hesitates and searches for this somewhat mysterious and altogether variable symptom of disease is alluring himself and the patient along to a fatal result.

I recently operated upon a man who came to me with relapsing appendicitis. I operated upon him in the midst of the twenty-first attack. He was a stout, well-built man. I could make out no physical symptoms whatever, but the history was classical, and I operated in the midst of the acute symptoms. I found the head of the colon adherent to all the proximal surfaces. Bringing it up, I found where there had been seemingly spontaneous amputation of the appendix and closure of the orifice. I could find no pus about the head of the colon, yet the symptoms in the midst of which I was operating pointed unmistakably to pus. I enlarged the incision, liberated the adhesions, and three inches above the head of the colon I found a pocket containing not more than an ounce of pus which had already perforated the parietal peritoneum and was burrowing into the abdominal wall, and within two inches of this and two inches farther remote I found the appendix alive and well, being nourished by its adhesion to the colon. These are the anomalous conditions that point to the fact that no man can tell (as Dr. Murphy has said) the pathological conditions within the abdominal walls. When we wait for positive symptoms; when we wait for a positive diagnosis, we simply welcome our patient into an untimely grave.

Dr. James F. W. Ross, Toronto: I take issue with Dr. Davis with regard to large intra-peritoneal abscesses. I have opened the

peritoneum of a little girl from which pus and gas spurted out like soda water out of a soda siphon, and after the operation the patient lived for two or three weeks then died from starvation. The original cause of the trouble was an abscess in the mesenteric glands, which perforated into the abdomen. I made a post-mortem examination and removed a pailful of pus from the child's abdomen. To my amazement, the omentum and intestines were firmly glued together with the exception of the peritoneal cavity which was almost obliterated, and there was nothing but a hole in the drainage-tube for anything to escape. Some of these cases of purulent peritonitis will have a tendency to cure themselves.

With reference to cases of fulminating gangrenous appendicitis, they all die. Dr. Bryant, in his remarks in Albany last February, distinctly stated that he had never seen a case of what he called fulminating gangrenous appendicitis but that terminated fatally. My own cases have all died, and, for that reason, when they come to me in what I call the second stage, I do not operate on them. I do not think any of us can disagree with Dr. Carstens, that when a patient reaches the third stage in which there is pus walled off, the right thing to do is to let the appendix alone. An operation done in the relapsing stage is not dangerous. I have never lost a case on which I have operated in the relapsing condition. As to immediate operation, advocated by Dr. Murphy, I consider it to be sound doctrine, but here in Toronto, at any rate, we do not see these cases early enough. Dr. Murphy says when we see a man with the classical symptoms of appendicitis we should operate at once, but we do not see them here when these symptoms present themselves.

Dr. L. S. McMurtry, Louisville, Ky.: One cannot but recognize in the remarks of the several speakers who have preceded me the marked advance of knowledge in relation to appendicitis. Four or five years ago many eminent surgeons advocated expectant treatment in all cases until general peritonitis was established, and inveighed against operative interference until the last moment. Now the course so forcibly advocated by Dr. Murphy and others in this discussion, is generally conceded to be the only safe method of dealing with this murderous disease.

Of the many important practical points discussed, I beg to direct attention to one in particular. It is to the importance of doing, in every case that will permit, a complete operation. We have learned the disastrous results of leaving behind diseased

tissues and multiple pockets of pus in suppurative salpingitis, and the same principles should be applied in operating for appendicitis as in salpingitis. There are, of course, cases of appendicitis in which ideal surgery is impossible, and in which we must be content merely to open, evacuate and drain as an immediate life-saving measure. But in all cases where the patient's strength will permit, a thorough operation should be done. Adhesions should be separated, multiple posterior pockets of pus should be emptied and the appendix removed with free flushing and drainage. I could report in detail numerous cases coming under my own observation, where prolonged illness and secondary operations would have been averted by carrying out this plan thoroughly in the beginning.

Dr. J. D. Griffith, of Kansas City: I would ask the gentlemen who have spoken, particularly Drs. Morris, Price and Murphy, who have had a large experience in this particular line of work, whether they have noticed that a catarrhal condition of the appendix produces a stricture. A year ago, in an article in the *Annals of Surgery*, Dr. Binnie wrote about appendicular colic as calling for operative interference; and Dr. Carstens, in an article published quite recently, speaks of the same thing. I have operated within the last six months on three cases for appendicular colic, not for suppurative appendicitis, and I have been able to demonstrate satisfactorily to myself that in at least two of the cases there was nothing beyond a stricture except an enlargement of the canal. I could only pass a whalebone guide through the strictured portion. There was marked thickening of the circular and longitudinal fibers of the appendix, showing that the circulation had been interferred with to such an extent that there was the commencement in one of the cases of an active ulcerative process. A collection of mucus beyond the stricture and its escape back toward the colon was the cause of the appendicular colic. It seems to me we have an easy way to account for some of these cases, as in the one cited by Dr. Reed where there was no fecal matter, but the orifice of the appendix was closed. We speak of closure of a stricture in the urethral canal, and why cannot the same thing occur in the Fallopian tubes. Why can we not account for the cutting off of the circulation in this way? I think appendicular colic has come to stay.

Dr. M. Hartwig, Buffalo, (by invitation,) took a conservative stand with reference to appendicitis. While the preceding speakers had shown proof of the great danger attending this disease, still if

we take the average cases as they come to the general practitioner, appendicitis was not very fatal. German statistics give about ninety per cent. of recoveries in cases not operated on. He admits that we may have the relapsing form of the disease, and he has had five or six cases of this form occur in his practice. Dr. Macdonald has done a good service by pointing out the difference between the operable and non-operable cases, as the speaker fully believes that such a distinction can be made.

Dr. Donald Maclean, Detroit: First of all, I desire to endorse very heartily the doctrine that has been presented by my friend Dr. Carstens—namely, that when you have appendicitis with adhesions fencing off the abdominal cavity and pus outside, you should open it as you would an ordinary abscess and wash it out. But not even the eloquence of Dr. Murphy, the logic of Dr. Price, or the experience of the members of this Association, would induce me to break up the adhesions and enter the peritoneal cavity. I am firmly settled on that point in my own mind.

As to the question of early operation, if I had my patients entirely under my control in the hospital, I certainly would advise and advocate early operative interference. Let us take, for example, a hundred cases in which an early operation is done for appendicitis, and I believe a great many of them would have recovered without an operation and permanently. I have had quite a number of cases under my observation and the opportunity of watching them. One was a coachman who had an acute severe attack of appendicitis, but was unwilling to have an operation performed. He got well without it. I have watched ever since and he is well today. I could cite many other cases, if necessary. In our practice we have to contend with the opposition of the friends or relatives of the patients regarding surgical interference, and this is a serious matter. It takes a man with a good deal of moral courage to go into a family and say to a mother or father, "your lovely daughter of fourteen has got appendicitis and must be operated on at once." It causes the family great sorrow, and sometimes catastrophies of another kind result from it. For instance, in Detroit, a young lady of a prominent family was taken with appendicitis and so diagnosticated by her physician. He called in a surgeon, who advocated immediate operation, which had the effect of horrifying the family to such an extent that my surgical friend and physician were both dismissed from the case. A homeopath was called and sure enough the case got well.

Dr. W. G. Macdonald, Albany: From what I have seen, the operative treatment of appendicitis has been largely confined, among a great many operators, to two classifications—cases of localized abscess with plastic peritonitis, and cases of relapsing appendicitis. Of all cases of relapsing appendicitis upon which I have operated, every one of them has gotten well, and of the other class of cases there is a mortality of 28 per cent. Five of these cases can be attributed to the breaking up of adhesions and establishing a communication between the general peritoneum and this area of the abdomen which has been suffering. I do not believe there is any system by means of which you can make it safe to turn this portion of infected peritoneum into the general peritoneum again, drainage or no drainage, or by any system of drainage.

Dr. Joseph Hoffman, of Philadelphia: Why gonorrheal pus is less irritating than that from the coccus which is supposed to inhabit the colon, is beyond my understanding. It is only an effort on the part of some to explain what we cannot understand, and the explanation does not go far, for the reason that we can constantly open up these colonic abscesses and they get well. There is no reason why, if the coccus of the colon is more poisonous than any other, one patient should get well and another should not, if there has been an abscess opening into the peritoneum. A case was cited in point.

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## THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK.

Reported by EDWARD B. ANGELL, M. D., Secretary, of Rochester, N. Y.

The twenty-seventh annual meeting of the Medical Association of Central New York was held at the Academy of Medicine Parlors, in the City of Buffalo, N. Y., Tuesday, October 16, 1894. The association was called to order at 10 o'clock by the president, Dr. H. L. Elsner, of Syracuse. The minutes of the last meeting were read and approved.

The president then announced the following committees:

On Business—Drs. Lucien Howe, of Erie; Geo. E. Clark, of Onondaga; A. S. Hall, of Cayuga.

On Credentials—Drs. John O. Roe, of Monroe; A. L. Benedict, of Erie.

On Reception—Drs. Floyd S. Crego, M. D. Mann, Roswell Park, Chas. G. Stockton, A. A. Hubbell, of Erie County.

Dr. F. S. Crego, of Buffalo, vice-president, then took the chair while the president's address, on Clinical and Bacteriological Aspect of Mixed or Concurrent Infection in Pulmonary Tuberculosis, was delivered by Henry L. Elsner, M. D., of Syracuse, N. Y.

Dr. Roe, of Monroe, moved that a vote of thanks be tendered to the president for his very able and instructive address. Carried.

Dr. Howe, as chairman of the business committee, then announced the order of business, and stated that on account of the length of the program it would be necessary to limit the reader of each paper to ten minutes, and its discussion to two and a half minutes.

Papers were then read as follows:

1. Hydrotherapy of Appendicitis, by Dr. George E. Clark, of Skaneateles, N. Y.; discussed by Dr. Jacobson, of Syracuse, N. Y. 2. Some Points in the Ethiology, Pathology and Indicated Treatment of Diphtheria, by A. A. Young, M. D., of Newark, N. Y.; discussed by Drs. Roe, Jacobson and Thornbury and, in closing, by Dr. Young. 3. The Home Treatment of Hay Fever, by A. L. Hall, M. D., of Fair Haven; discussed by Dr. Roe and, in closing, by Dr. Hall. 4. A New Microörganism Discovered in Pork, by F. J. Thornbury, M. D., of Buffalo, N. Y. 5. Atonic Dyspepsia, by A. L. Benedict, M. D., of Buffalo, N. Y.; discussed by Dr. Jones and, in closing, by Dr. Benedict. 6. The Treatment of Lactic Acid Excess in the Stomach, by A. A. Jones, M. D., of Buffalo, N. Y.; discussed by Drs. Benedict and Zimmer and, in closing, by Dr. Jones. 7. Exhibition of a Neurological Bust, devised by Wm. C. Krauss, M. D., of Buffalo, N. Y. 8. A Case of Nephrectomy, by Herman Mynter, M. D., of Buffalo, N. Y.

Recess was then taken, and the members proceeded to the Genesee Hotel, where they were entertained at dinner as the guests of the Medical Society of the County of Erie.

### AFTERNOON SESSION, 3 P. M.

The report of the treasurer was read and showed a balance on hand of $214.05. Approved.

The election of officers for the ensuing year resulted as follows: President, Dr. Floyd S. Crego, of Buffalo; first vice-president, Dr. William S. Cheeseman, of Auburn; second vice-president, Dr. E. L. Mooney, of Syracuse. The secretary and treasurer hold their offices for another year. Drs. E. B. Potter, E. B. Angell and A. A. Young were elected delegates to the American Medical Associa-

tion, and the secretary was authorized to give the necessary credentials to any member desirous of attending the meeting.

The report of the publication committee was presented by the secretary, announcing the arrangement made with the BUFFALO MEDICAL AND SURGICAL JOURNAL for the publication of the proceedings. The committee had considered it unadvisable this year to print a revised constitution and list of members. The report was accepted and the committee discharged.

The president then appointed as publication committee for the ensuing year the secretary, Dr. Angell, and the treasurer, Dr. Mercer, to which committee Dr. Wm. C. Krauss, of Erie County, was added. The committee was authorized to publish at their discretion the revision of the constitution with list of members.

The chairman of the business committee then read two letters of regret, one from Dr. M. D. Mann, of Buffalo, and the other from Dr. L. A. Weigel, of Rochester.

Papers were then read as follows:

9. Report of two Cases of Extra-uterine Pregnancy—Operation—Recovery, by Herman E. Hayd, M. D., of Buffalo, N. Y. 10. The Pathology of Trichinosis—Original Observations—Illustrated, by F. J. Thornbury, M. D., of Buffalo, N. Y. 11. Observations Upon an Anencephalic Monster, by E. B. Angell, M. D., and S. L. Elsner, M. D., of Rochester, N. Y. 12. Discussion Upon the Management of Occipito-posterior Positions—participated in by Drs. Van Peyma and Frederick, of Buffalo, N. Y. 13. Report of a Recent Case of Abdominal Pregnancy—Laparatomy—Recovery, by H. T. Williams, M. D., of Rochester, N. Y.; discussed by Dr. Mynter. 14. Atrophic Changes in the Optic Nerve, the Result of Nervous Disease, by A. A. Hubbell, M. D., of Buffalo, N. Y.; discussed by Drs. Howe, Crego and, in closing, by Dr. Hubbell. 15. Dangers of the Intra-uterine Tampon, by W. E. Ford, M. D., of Utica, N. Y.; discussed by Dr. Williams. 16. Septic Inflammation of the Cerebral Sinuses, by Roswell Park, M. D., of Buffalo, N. Y. 17. Uterine Hydatids, by H. D. Ingraham, M. D., of Buffalo, N. Y.; discussed by Dr. Van Peyma. 18. A Report of One Year's Work in Abdominal and Gynecological Surgery at the Buffalo Women's Hospital, by C. C. Frederick, M. D., of Buffalo, N. Y. 19. Faradic High Tension Coils and Currents, by Dr. F. W. Ross, of Elmira, N. Y.; discussed by Drs. Park, Ford, Crego and, in closing, by Dr. Ross. 20. Report of a Case of Sarcoma of the Abdomen Cured by the Toxines of Erysipelas,

by Dr. H. Mynter of Buffalo, N. Y.; discussed by Dr. Ingraham, and Dr. Mynter in closing.

The following papers were then read by title and ordered printed in the transactions:

21. The Use and Abuse of Mechanical Appliances, by L. A. Weigel, M. D., Rochester, N. Y. 22. A Case of Bruised Nerve, by John Van Duyn, M. D., Syracuse. 23. The Treatment of Sleeplessness Without the Use of Narcotics, by F. S. Crego, M. D., of Buffalo. 24. Enteroclysis in the Various Forms of Enterocolitis and the Zymotics Generally, by F. W. Bartlett, M. D., of Buffalo. 25. Intra-abdominal Shortening of the Round Ligaments for Retro-displacements of the Uterus, by M. D. Mann, M. D., of Buffalo. 26. A Few Cases of Puerperal Convulsions, by F. W. Sears, M. D., of Syracuse.

Under the head of miscellaneous business, Dr. W. C. Phelps, of Buffalo, made the following remarks:

Mr. President—I have a letter which I received from Mr. Tracy C. Becker, who is a lawyer in this city and is quite interested in medico-legal affairs, being one of the authors of a book that is being published by William Wood & Co.; he was also a delegate to the late Constitutional Convention. He is interested in an amendment adopted by the convention abolishing the office of coroner. He tells me the scheme that he and others have on hand is to have a law passed by the legislature which provides for the same duties that have formerly been performed by the coroner, but limiting the eligibility to hold that office to members of the medical profession, so that no one but physicians can hold the office. As a preliminary to that, the office of coroner must be abolished, and that can only be done by altering the constitution of the state. He thinks, as a lawyer, and as physicians I think we know the same thing, that the office of coroner has been a good deal of a farce and it is very reasonable that when a person dies, any official investigation should be conducted by a doctor, and that is what the medico-legal society and the law society and others are working for. This amendment is bunched up to be voted on separately, not along with the other amendments, especially the apportionment, with the amendment which prohibits the selling of pools on race tracks. The race track people are raising thousands of dollars. I saw today that it was reported that a gentleman of Buffalo had sent $50,000 as a fund to prevent the adoption of this branch of the constitutional amendments. Mr. Becker suggests that physicians all over the state, and he wished me to bring it up before this association especially, should be urged to vote for this amendment, and also get all their patients that they can to vote for it, with the idea of finally throwing this office of coroner into the hands

of the medical profession. He suggests that the secretary of this association send a note to each member urging him to vote for this special amendment. I would, therefore, make that motion,

"That the secretary be requested to send a note to each member requesting him to vote for this amendment to the Constitution of the State of New York."

Dr. CREGO: I would add as an amendment, "that this Society endorses the action of the Constitutional Convention in passing such a resolution." I think that would give a little more weight to it. I think we are all in favor of it.

Dr. PHELPS: I accept the amendment.

The resolution, as amended, was seconded and carried, and the secretary directed to communicate the action of the association to each member.

Dr. MOONEY moved that a vote of thanks be extended to the Medical Society of the County of Erie for the very pleasant manner in which the Association has been entertained.

Seconded and carried.

The secretary announced the names of the following physicians who had complied with the requirements of the by-laws and moved their election to permanent membership: Drs. John J. Twohey, A. L. Benedict, F. W. Bartlett, Wm. C. Krauss and A. J. Martin, of Erie County; John W. Flick, Frederick Remington, W. J. Howe, Thomas Jameson, Sumner Hayward, E. B. Potter, John D. Briggs, J. H. Schopp, Charles R. Barber, and S. W. Rose, of Monroe County; John H. Batt and F. L. Stebbins, of Ontario County; R. W. Bamler, of Orleans County; M. E. Carver and M. Alice Brownell, of Wayne County.

The motion was seconded and carried and they were declared elected permanent members.

President ELSNER then addressed the association as follows:

*Members of the Central New York Medical Association:*

In declaring this meeting adjourned I wish personally to express my deep sense of obligation to the members of the Medical Society of the County of Erie, to all gentlemen who have taken part here today, to our secretary for his untiring efforts in making this, our twenty-seventh annual meeting, a success. I feel that this has been in every sense of the word a successful meeting. I do not know where we could go and find as many enthusiastic workers as have worked today with us to make this meeting a complete success,

and I hope that next year when we meet in Syracuse, we will have as large, if not a larger gathering, and that all of you who have been here today will be with us there, the third Tuesday in October, 1895.

The association then adjourned.

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## BUFFALO ACADEMY OF MEDICINE.

### SECTION ON SURGERY.

Reported by E. J. GILRAY, M. D., Secretary.

The regular monthly meeting of the surgical section of the Academy of Medicine was held in the Academy Parlors, October 2, 1894, Dr. M. Hartwig in the chair.

Present: Drs. Hartwig, Hopkins, Sherman, Dowd, Shroetter, Hayd, Grosvenor, Van Peyma, Goldberg, Potter, Carroll, Snow, Mulford, Paterson, Carter, Eugene Smith, Le Van, Renner, Tremaine, Krauss, Chauncey Smith, Dwyer and Gilray.

*Papers.*—The Value of Extension and Counter-Extension in the Treatment of Fractures of the Humerus, Dr. J. W. Grosvenor. Volkmann's Splint in Fracture of the Thigh, Dr. H. E. Hayd. Ambulatory Treatment in Fractures of the Lower Extremities, Dr. Marcell Hartwig.

#### DISCUSSION.

Dr. Tremaine: Did not, as a rule, approve of any special splint or design, but the surgeon should have sufficient ingenuity to improvise to meet exigencies of case. Took exception to Dr. Hayd's wholesale denunciation of plaster of Paris casts. Every fracture must be treated on its own merits.

Dr. Eugene Smith: Where certain complications existed, plaster of Paris casts were the only ones that could be used in fracture of the thigh.

Dr. Hayd: Seemed to him that there was no place for a plaster of Paris cast, except in a maniac or irresponsible person. No matter how carefully it be put up, the surgeon has no direct proof that bones are in apposition.

Dr. Hartwig cautioned the younger members against being seduced by Dr. Hayd's scathing disapproval of the plaster of Paris cast. The danger in cast is in not making it high enough.

Dr. Hayd presented a specimen of extra-uterine pregnancy.

Meeting adjourned at 10.30 P. M.

## College Notes.

The Cincinnati College of Medicine and Surgery (medical department of the University of Cincinnati,) has issued the announcement for its forty-fourth year. There are some features of this pamphlet that deserve special comment. In the first place, we find on page 20 a summary of the existing state laws relating to the practice of medicine, which closes with this significant sentence, "other states will probably soon enact similar laws."

Under the head of requirements for admission is published a blank form to be filled out by the candidate; and a note is added requiring the statements therein as to qualification to be confirmed by appropriate vouchers.

A further distinguishing feature of this announcement is, that eminent members of the medical profession throughout the country will address the students on special topics. The list embraces: Dr. Donald Maclean, of Detroit; Dr. Joseph Price, of Philadelphia; Dr. John R. Van Hoff, of U. S. Army; Dr. L. S. McMurtry, of Louisville; Dr. Isaac N. Love, of St. Louis; Dr. Lawrence C. Carr, of Cincinnati; Dr. Karl von Ruck, of Asheville.

Finally, a number of prizes are offered which tempt a friendly rivalry in the several departments of medicine.

The elevated standard which this school has adopted is an index of the improved environment of medical college teaching all over the land.

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The faculty of the medical department of the University of Buffalo announces that a course of ten lectures on the History of Medicine will be given in Alumni Hall at the college building by Dr. Roswell Park. The first lecture was delivered Monday evening, October 8, 1894, and subsequent lectures will occupy Monday evenings until the course is completed. These lectures are open to all who are interested in the subject.

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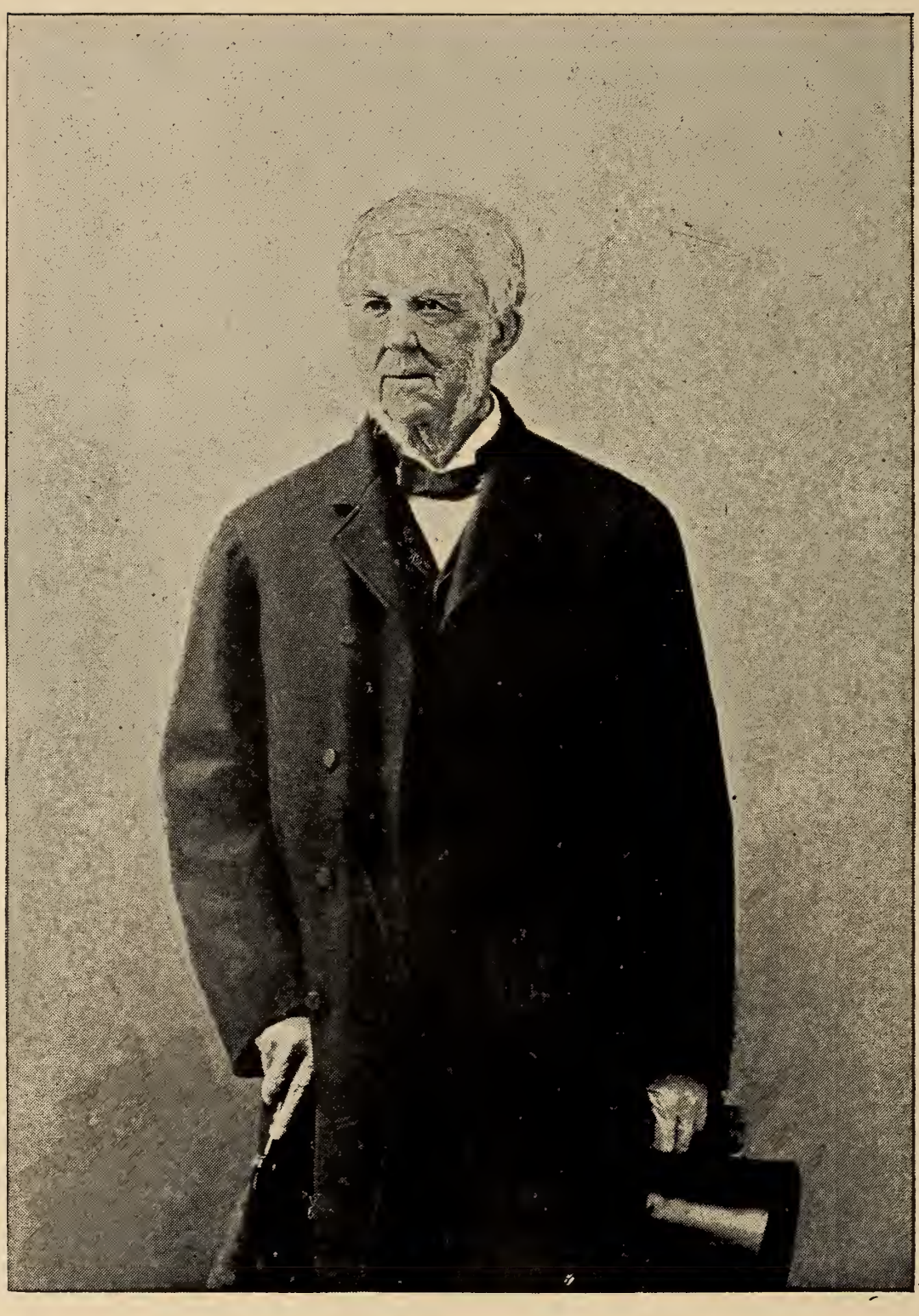
Taylor Brothers Company, of Rochester, N. Y., have issued a neat little circular giving information on the subject of clinical thermometers, which will be sent on application. Every doctor knows the importance of accuracy in clinical thermometers, and no physician has yet complained that Taylor's certified thermometers are not of the best.



OLIVER WENDELL HOLMES.

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BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. NOVEMBER, 1894. No. 4.

## OLIVER WENDELL HOLMES.

THE most distinguished American physician has passed to his immortality, and it is fitting that the JOURNAL should take more than ordinary cognizance of an event that is and must be common to us all. Oliver Wendell Holmes died at his home at Beverly Farm, at noon, on Sunday, October 7, 1894, without pain and without warning excepting such admonition as must always come with advancing years.

Dr. Holmes's life was a remarkable one from several view points. He was born on commencement day at Cambridge, August 29, 1809, and was, therefore, at the time of his death, just past eighty-five years of age. His father was a clergyman of the Presbyterian church, and his mother, for whom his second name was given, was of Dutch descent.

He was educated first at Cambridge, then at Phillips's Academy, and finally entered Harvard College in 1825, whence he graduated four years later. He entered Harvard Law School in 1830, but soon abandoned law for medicine and took his medical degree from Harvard in 1836. Before this time he began to develop literary ability of an unusual order, and had already made a name in the poetical field through a poem before the Phi Beta Kappa Society. He also won several of the Boylston prizes offered for medical dissertations about this period of his life.

He was appointed professor of anatomy and physiology in Dartmouth College in 1838, a chair that he held for two years. He married Miss Amelia Lee Jackson, daughter of Hon. Charles Jackson, June 16, 1840, and three children were born of this marriage. Oliver Wendell Holmes, now a justice of Massachusetts

Supreme Court, the elder son, alone survives. A son and a daughter are dead.

Dr. Holmes was appointed Parkman professor of anatomy and physiology in Harvard Medical School in 1847. He taught anatomy for thirty-five years, retiring from the chair in 1882. He made his lectures attractive, no doubt largely through his literary attainments, which had now become known throughout the world as of a high order. The Autocrat of the Breakfast Table was introduced to the reading public through the columns of the *Atlantic Monthly* in 1857, and it is largely due to Dr. Holmes's contributions to that periodical that it became one of the best read magazines in the country. From the moment that he assumed the editorship of the *Atlantic*, Dr. Holmes began to be recognized throughout the world as a man of letters, and literature now claimed his attention more than medicine.

His essay, however, on Puerperal Fever, though published in an early day, long before the germ theory of disease was understood, is often quoted for its clearness and scientific reasoning and is one of the medical classics of the period. Who, too, has not been delighted with the charming literary merit of the Autocrat of the Breakfast Table and that delightful medicated novel, Elsie Venner ?

While Dr. Holmes's fame in prose is world-wide, yet it is as a poet that his greatest literary merit is recognized and must endure.

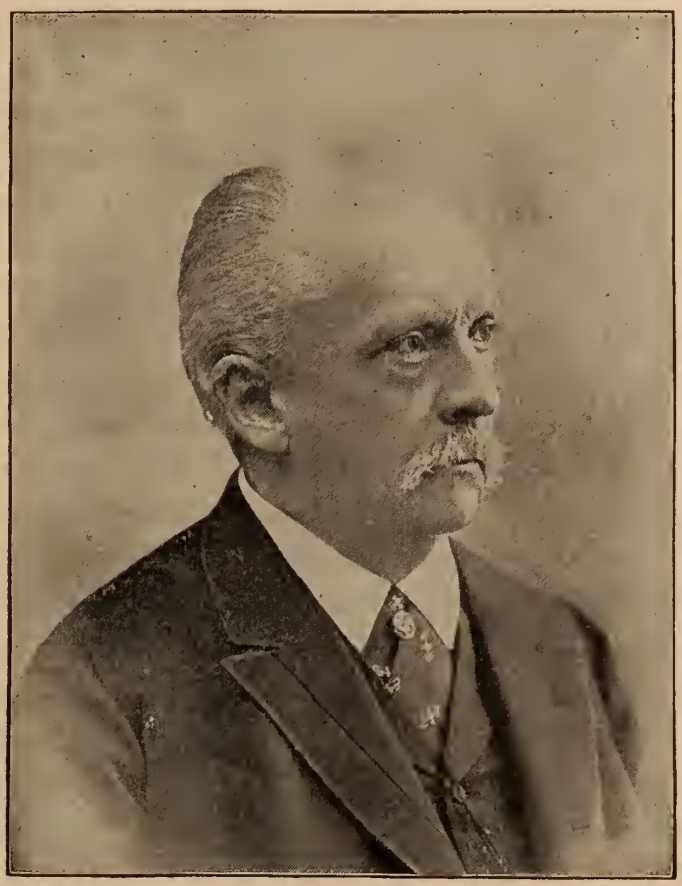
Since Dr. Holmes's retirement from active duties of life, which may properly date from 1882, when he resigned his chair of anatomy at Harvard, he has been the recipient of many honors. Dinners have been given and other public ceremonies have been held commemorative of the esteem his fellow-countrymen hold him in, and he has been ever ready to respond with his pen to any reasonable demand that could be made upon him. Poems, essays, obituary notices and letters have been written without number, and he has received at his own house and entertained, in the most delightful fashion, visitors without limit, including literary men and women, savants, civilians, as well as callers from mere curiosity.

No man has contributed to the *esprit de corps* of the profession of medicine to a greater degree that has Dr. Holmes, for this certainly has been the trend even of his non-professional writings.

He leaves a legacy rich in prose and verse that will make his memory green during all the coming centuries, wherever science is known and literature is appreciated.

## PROFESSOR HELMHOLTZ.

Baron Herman Ludwig Ferdinand von Helmholtz, better known in the scientific world as Professor Helmholtz, died in Berlin, September 8, 1894, aged seventy-three years. This event not only threw Germany into mourning, but throughout the scientific world, wherever science is known, there was sympathetic sadness. The cause of his death was a paralytic stroke, which



PROFESSOR HELMHOLTZ.

*From a photograph furnished the Literary Digest by Dr. Herman Knapp.*

occurred September 5th, consecutive to an initial stroke which he received early in July.

Professor Helmholtz was born at Potsdam, August 31, 1821, (his father being German and his mother English,) where he received his preliminary education and became a medical student, but took his final degree at the University of Berlin. After a brief service in the army in 1848 he was appointed professor of anatomy in the Academy of Fine Arts, and at the age of twenty-seven years he became professor of physiology in the University of Königsburg. It was during this period of his life that he

turned his attention to physiological optics, and in 1851, at the age of thirty, he published a little treatise, entited *Beschreibung eines Augen-Spiegels zur Untersuchung der Netzhaut im Lebenden Auge*, in which he described the ophthalmoscope and the principles of its use. Could all else that Helmholtz ever did have been wiped out, this alone would have immortalized him. This instrument marked an epoch in ophthalmology, and has been the means of bringing about an immense advance in this department of medicine, and, too, has rendered great service in the study of nervous diseases.

But Helmholtz did not stop with the ophthalmoscope. Soon afterward he invented the ophthalmometer, out of which has developed the various ophthalmometers of today used in measuring the curvatures of the cornea. He also made many other contributions to the optical properties and physiology of the eye, including the action of the ciliary muscle, the changes of curvature of the crystalline lens during such action, the theory of colors and the like. His work on physiological optics was a wondrous production, and will forever remain a classic of our time. The career of Helmholtz from the time he wrote that remarkable essay on conservation of energy at the age of 26, till after his visit to the electrical exposition of our World's Fair at Chicago in 1893, was one of constant teaching, investigating and writing. His contributions, too numerous to mention here, were one continuous enrichment to abstract and mathematical science, to physics and to physiology.

At the time of his death, Helmholtz was professor of physical science in the University of Berlin, having occupied this chair since 1871. His academic services had before this been given to the University of Königsburg (1849), University of Bonn (1855), and University of Heidelberg (1865).

What a loss to the world when such a mind becomes entombed! It is no wonder that Germany is thrown into mourning for one of her greatest sons, and that the whole scientific world mourns with her, for the two hemispheres claimed this great man, and this sense of loss is not limited by territorial boundaries.

His funeral took place on September 12th, at Charlottenburg, and was attended by representatives of many universities and scientific societies, by Dr. Lucanias on behalf of the Emperor, and by Major-General Von Pfuhlstein on behalf of the Empress Frederick.

# STATE EXAMINATIONS FOR LICENSE.

## PENNSYLVANIA.

An autumn examination will be held by the Pennsylvania Board. Its influence is already clearly felt in the solicitude shown by some of the medical schools concerning the fitness of students to pursue the study of medicine. It was rare in former years to hear the dean of a medical school advise a pupil not to enter or continue in the course unless, indeed, the student had paid all the fees that the college could exact. We hear now, however, occasionally of students being advised that they are not sufficiently prepared to enter upon the medical course. It is to be hoped that the Pennsylvania Board will maintain the position that was assumed in the first examination. The questions were highly satisfactory. They were such as any well-educated graduate could answer, and if perfect impartiality, fairness and strictness are maintained, the effect upon the colleges and upon the profession will be most beneficial.—*Medical News*, October 13, 1894.

## NEW YORK.

We publish the following statistics of the September examinations for state medical license by the board representing the Medical Society of the State of New York :

| | | |
|---|---|---|
| Total number of candidates | 76 | |
| Successful | 51 | |
| Unsuccessful | 25 | |
| Percentage of rejections | 32.9 | |
| Rejected in anatomy | 7 | |
| " " physiology and hygiene | 3 | |
| " " chemistry | 6 | |
| " " surgery | 9 | |
| " " obstetrics | 16 | |
| " " pathology and diagnosis | 10 | |
| " " practice, materia medica and therapeutics | 6 | |
| | 57 | |
| Average rejections in each topic | 8 | |
| Rejected in one topic | 12 | 12 |
| " " two topics | 3 | 6 |
| " " three " | 5 | 15 |
| " " four " | 3 | 12 |
| " " five " | 1 | 5 |
| " " seven " | 1 | 7 |
| | | 57 |

In connection with the above statistics we would invite special attention to the address of Prof. F. W. Hinkel, M. D., published in this issue of the JOURNAL, which deserves to be read by every medical student in the State of New York. If the several colleges in this state, following the example of Dr. Hinkel, would instruct their pupils on the subject of state control of medical license, it would serve to increase the general intelligence on the subject and to better prepare students for the final examination by the state.

## Personal.

DR. J. C. SEXTON, of Rushville, Ind., has built and equipped a private hospital, which is provided with every convenience for the care of surgical and gynecological cases. The sanitary surroundings are all that could be desired. The heating is by natural gas. Each patient occupies a private room, and has a trained nurse in attendance. No contagious or venereal cases will be taken. Dr. Sexton's success in this line of practice and his high standing in the profession ought to insure the hospital a large patronage.

DR. I. S. STONE, of Washington, D. C., has removed to 1409 Rhode Island avenue, N. W., where he has opened a private sanitarium exclusively for the treatment of diseases of women The location is a desirable one, and the building is most complete in all its appointments.

DR. ALFRED E. DIEHL, of Buffalo, announces that he has opened an office at 362 Pearl street, where he will confine his practice to skin and venereal diseases, having devoted his attention to these specialties while abroad. Hours: 9–1 and 7–8.

DR. J. G. HARPER, of Buffalo, has removed from 190 Niagara street to the corner of Franklin and Huron streets. He announces diseases of women as a specialty. Hours: 9–10.30 A. M., 1–3 and 7.30 P. M.

## Society Meetings.

THE Medical Association of Central and Western New York held an interesting meeting at the Buffalo Academy of Medicine on Tuesday, October 16, 1894, under the presidency of Dr. Henry L.

Elsner, of Syracuse. The attendance was large and many of the papers were of a high order of merit. It is, however, a fair criticism to say that the time allowed for discussion was entirely inadequate, thus offering a poor incentive for authors to do good work. We hope this error will be rectified in future.

The business of such an association should all be done in committees, fewer papers should be read and longer discussions encouraged.

We begin in this number of the JOURNAL the publication of the proceedings of the association, which will be continued until all the papers are published. The president's address (page 204) is an able paper that deserves careful reading.

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THE American Academy of Railway Surgeons will hold its first meeting in the parlors of the Grand Pacific Hotel, Chicago, Ill., on Friday and Saturday, November 9 and 10, 1894.

Dr. C. M. Daniels, of Buffalo, will read a paper on The Use of Horse Hair in Surgery, and Dr. C. B. Kibler, of Corry, Pa., will open the discussion on a paper by Dr. B. Merrill Ricketts, of Cincinnati, entitled The Environments of Railway Surgery.

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## A COURSE IN BACTERIOLOGY.

THE faculty of the University of Buffalo desire to announce a Course in Bacteriology to be given in the Bacteriological Laboratory of the University during the six weeks beginning November 15, 1894. The course will comprise a study of the pathogenic and non-pathogenic bacteria and molds, in stained and unstained preparations and in plate cultures, with special reference in each instance to general microscopic and special bacteriological technique, including the various staining methods. The tubercle, typhoid, anthrax and tetanus bacilli and the cholera group of organisms will be studied in detail, and inoculation experiments made upon animals. Instruction will be given in the examination of air, earth, water and milk. Disinfection and sterilization will be elaborated and the method of testing the value of antiseptics studied. The present status of immunity will be briefly considered. The system employed in the Koch course in the hygienic institute in Berlin and that adopted by Professor Arnold in his laboratory at Heidelburg will be followed.

The course is open to second and third year students of the University and to all practitioners. Two hours will be devoted to work daily, and the time will be from 2 to 4 o'clock, or from 8 to 10 o'clock P. M., as determined by a majority of those entering. Those desiring to register will make application at once to Dr. Roswell Park, Director of Laboratory, or to Dr. Frank J. Thornbury, Demonstrator.

## BOOKS RECEIVED.

Diseases of the Chest, Throat and Nasal Cavities. Including Physical Diagnosis and Diseases of the Lungs, Heart and Aorta, Laryngology and Diseases of the Pharynx, Larynx, Nose, Thyroid Gland and Esophagus. Third edition, revised. With 240 illustrations, 8vo, 718 pages. By E. Fletcher Ingals, A. M., M. D., Professor of Laryngology and Practice of Medicine, Rush Medical College; Professor of Diseases of the Throat and Chest, Northwestern University Woman's Medical School, etc., etc. Price, muslin, $5.00. New York: William Wood & Company. 1894.

Transactions of the American Surgical Association, Volume the Twelfth. Edited by De Forest Willard, M. D., Recorder of the Association. Philadelphia: Printed for the Association and for sale by William J. Dornan. 1894.

Text-Book of Anatomy and Physiology for Nurses. Compiled by Diana Clifford Kimber, Graduate of Bellevue Training School; Assistant Superintendent, New York City Training School, Blackwell's Island, N. Y. Octavo pp. xvi.—245. Price, $2.50. New York and London: Macmillan and Co. 1894.

The Sympathetic Nerve. Drawn from a dissection prepared by Byron Robinson, M. D. Chicago: 1894.

A Manual of Hygiene. By Mary Taylor Bissell, Professor of Hygiene in the Woman's Medical College of the New York Infirmary for Women and Children. Octavo, cloth, $2.00. New York: The Baker & Taylor Co., 5 and 7 East Sixteenth street. 1894.

Eighteenth year. Book of the New York State Reformatory, Elmira, N Y. Containing the annual report of the board of managers for the year ending September 30, 1893. Transmitted to the State Legislature, January, 1894.

Travaux D'Electrothérapie Gynécologique Archives Lemestrielles D'Electrothérapie Gynécologique Fondées et Publiées par Le Dr. G. Apostoli, Vice-Président de la société Francaise D'Electrothérapie, etc. Volume Fascicules 1 et 11. Paris: 1894.

Syllabus of Lectures on Human Embryology: An Introduction to the Study of Obstetrics and Gynecology. For Medical Students and Practitioners. With a Glossary of Embryological Terms. By Walter Porter Manton, M. D., Professor of Clinical Gynecology and Lecturer on Obstetrics in the Detroit College of Medicine; Fellow of the Royal Microscopical Society, of the British Zoological Society, American Microscopical Society, etc., etc. Illustrated with Seventy (70) Out'ine Drawings and Photo-Engravings. Duodecimo, cloth, 126 pages, interleaved for adding notes and other illustrations, $1.25 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street. 1894.

Buffalo Medical and Surgical Journal

Vol. XXXIV. DECEMBER, 1894. No. 5.

# Original Communications.

## A CRITICISM OF THE "GERM THEORY OF DISEASE," BASED ON THE BACONIAN METHOD.[1]

By LAWSON TAIT, F. R. C. S., etc., etc.,

Consulting Surgeon to the Hospitals for Women at Birmingham, Nottingham and Southampton, and to the West Bromwich Hospital, etc.

Some ten years ago, and lasting for about six years, a revival occurred of what has unfortunately appeared in various forms too often, and from which we cannot expect to escape altogether in the future, the employment of electricity as a remedy for disease. In this instance it was directed to the treatment of affections in the female pelvis, and we were told that inflammatory effusions, purulent inclusions in the tubes and solid tumors in the uterus had melted away under the influences of electrolytic currents. My own criticism of the proposals were mainly confined to the suggestion that as inflammatory processes were pretty much the same in all particulars wherever met with, I should be content to believe the statements and follow out the treatment if I saw it applied successfully to the products and results of a whitlow or a ganglion of the wrist.

My suggestions were not listened to; at least I have never heard that they were carried out successfully, and the electrolytic treatment in gynecology has already gone the road of all such things, after doing infinite harm in all directions save one.

In this room some two months ago two papers were read, to one of which I listened with the greatest care, for it was on a subject concerning which I had no practical knowledge, though I had read much and with great interest on the results of researches in bacteriology—the subject of Dr. Armand Ruffer's paper. Only

1. Read before the Birmingham and Midland Branch of the British Medical Association, October 11, 1894.

one thing in the paper struck me with dissatisfaction, and that was the constant reiteration of expressions by the author of the perfect certainty of the conclusions he asserted. I took part in the debate, and mildly suggested that its cock-suredness was possibly a little premature. Now I am certain of it, for I have followed in my reading with a growing conviction that the same offer of criticism may be made to it as I made in the case of pelvic electrolysis. Let us see how its assertions bear the test of examination by the great broad lines of disease, and by the phenomena of such diseases as place their leading features under our eyes for inspection, diseases upon the course and distribution of which we can gather exact and trustworthy information, diseases in the course of which we can perform experiments entirely legitimate and under logical conditions—in fact, diseases where we can argue without the probability of leaving out altogether the major propositions of our syllogisms, or of entirely neglecting what may be really the *causa causans*.

I entered my college career just as the grand sweep of the cellular pathology was careering over the medical world. Everybody was mad after a new cell. Special courses and special teachers were told off for cellular instruction. Our microscopes had got so far as to unriddle the facts of cellular construction, and therefore there must be a cellular pathology which was to explain everything. Two parties existed and of course they fought bitterly, the only real and permanent effect being that the unhappy student had to meet two sets of examiners and to know two sets of answers to the same questions, the one to be given as the wind blew from the east, the other as the turn of the west wind came. The cellular party apparently triumphed, but it has silently and mysteriously disappeared, so that we may ask with Hans Breitman, "where is dad barty now?"

When we looked down our brass tubes at pathological products we saw, so clumsy were the sections, masses of cells so indefinite that they might have been slices of cheese, but we believed and we wondered accordingly. Here and there we saw curious little bright points in quivering movement, and when asked about them we answered that they were "vibrating molecules." A molecular pathology grew up, but died with its one exponent.

During the twelve years in which I was a hardworking and enthusiastic microscopist the process of staining was developed with great advantage. And here I want to indulge in a little bit

of egotism, and remind those persons who now sneer at the views of a mere practitioner like myself as unscientific, and the person himself as one of no scientific attainments, that one of the most selective of all methods of research by staining was my own invention; that I was the first to show that fresh tissues of the greatest delicacy, such as the umbilical cord, could be cut of less than a thousandth of an inch in thickness so perfectly that the whole diameter of the cord could be cut and mounted fresh without a single air bubble in it. In this way I unraveled the anatomy of the cord so completely that not a single fact has been added to or taken from my description during the eighteen years which have elapsed. But with the introduction of immersion lenses my work at the microscope ceased, for I found something better to engage me.

Since then the extension of our powers of sight and our methods of staining have resolved our "vibrating molecules" into a vast array of little beasts, about which thousands of facts of the greatest interests have been discovered—but about which the facts have been misconstrued, alike in importance and in direction. From some of these facts another great theory by which everything is to be explained, and under which everything is to be squeezed, has been promulgated: it is called the "Germ Theory" and its modern, or rather its most recent developments, I propose to take as my subject of this present paper. I am the more induced to do so, in that my old friend and former pupil, whom I honor in his place today as our President, and congratulate on that well-merited distinction, took the same question, and the same title as the subject of his Presidential address. I liked the address very much, and I fully appreciated the gracefully concealed, but quite as graciously apparent things he said about myself; not only so much for the things he said, as the kindly way he said them, I thank him heartily.

I therefore sincerely hope he will forgive me, when at the very beginning of what I have to say, I declare his title to be entirely mistaken.

Throughout the range of all branches of medicine and surgery one of the greatest of its defects is its nomenclature, a statement which is proved by the constant, meaningless and purposeless changes we make in it. If there is any defect greater than this in medical literature, it is its defective logic—its logical processes are generally so bad that its writers might never have had any experi-

ence whatever in the simple equation of algebra or the first book of Euclid, though these are the very best trainings in logic which the world is possessed of.

Let me remind you, that not only all the canons of logic, but all the facts of discovery recognize three stages of generalization, the hypothesis, the theory, and the law.

The hypothesis is represented by the first statement of an algebraic equation—let $x$ equal the unknown quantity; and then all the facts concerning $x$ are twisted and turned about on both sides of the sheet till it is shown either that $x$ is an ascertainable quantity, or that the equation problem is faulty by reason of some inaccuracy or some deficiency in the statement of the case.

The theory, as a development of the hypothesis, is well seen in most of the problems of the first book of Euclid, as may be stated in that where it is offered for our belief, that if two triangles are equal in one side and in one angle they must be equal in all other respects. That being established by the *reductio ad impossibile* the conclusion becomes a law. If it could be disputed by a single example, it would no longer be a law, as we can see that it would be by countless problems suggested by the possibility of their being a fourth dimension in space—as for example, that the nearest route between two points need not necessarily be a straight line. Indeed, the establishment of a fourth dimension in space would make Euclid's problems a series of amusing hypotheses, pretty much what the so-called germ theory of disease is now, with a series of interesting facts quite incapable of coördination, or of practical application. And I must ask you to bear in mind that there are a great number of very competent people who believe that this supposition has been proved. Ledocowski's suggestion that parallel lines may really approach one another, yet never meet, is one of the many points by which eminent mathematicians regard it even now as a workable theory.

The use of the word theory is so much a favorite pastime in medical literature, that to say that it occurs generally abused as an undistributed middle term, is a mere flippancy.

The abuse of the word is a notable example of the utter absence from our common professional language of any sustained effort to respect the first essential of logic, constant and respectful definition. We speak with equal complacency of the theory of some lunatic patient that the moon is made of green cheese, and of the kinetic theory of gases. The first has not a single fact on which

it is based, while the second has explained the solar atmosphere, the total absence of hydrogen and oxygen from ours, and the fact that on the invincible union of hydrogen and oxygen the whole economy of our universe depends.

The kinetic theory has almost become the law of gaseous motion. The germ theory of disease is not a theory at all. It is not even a hypothesis. It is a mere congeries of facts some truly stated, but mixed up with a far greater bulk inaccurately (indeed, untruly stated), upon which not even a working hypotheses has yet been suggested, far less a theory built.

From the earlier doings of humanity the farmyard science and the roughest domestic medicine recognized the fact that diseases of certain and familiar kinds were conveyed about by poison.

The belief concerning an exanthematic disease or plague, which commended itself most to the ancient Hebrews, and to the Greeks, was that it was a blow from an offended or malevolent deity.

Under the new dispensation the favorite Christian doctrine has been that it was a visitation from the devil. For both the modern scientist has substituted a microbe. But this is no theory, it is not even an advance in logical conclusion or construction over the Jew of Mosaic times.

Any one who will read attentively (as I fear very few do now-a-days) the Book of Leviticus, especially the latter half of the 14th chapter, will see that the fact of the conveyance of disease by a poison was completely recognized by its author. The ancient Jews were a very practical, business-like, and honest people, and could have written sanitary articles in medical journals much better than some of their descendants of the present day do now.

They knew the facts of sepsis, and had most elaborate schemes of antisepsis, particularly for the gonococcus; and their stringent antiseptic details were not much more ridiculous, or probably much less satisfactory than many of the myriads that have emanated from Lister himself.

The facts of the poison origin of certain diseases has *always* been accepted, but the suggestion of the immediate machinery has, as I have shown, curiously varied. The last suggestion is that of the microbe—he may be displaced by a "smaller flea"; but even if he proves to be the ultimate fact, he is only a fact, nothing more than a fact, certainly not a theory.

The road by which we went astray in this matter was one that

might have been set as a trap. It began in the famous discussion between Pouchet and Pasteur on biogenesis. Pouchet believed, erroneously, that he had discovered life in its cradle, whilst Pasteur made the far more practical discovery of the ultimate (or probably ultimate) facts of decomposition. He did not invent a hypothesis, he did not formulate a theory, and he did not establish a law—all that had been done before—he simply added facts.

The law of decomposition had long been known; given a solution of organic compounds, maintained at a certain temperature to which the air has access, and they will decompose. Pasteur (and by that name in this research I indicate a host of other names of whom many are perhaps equally important) added the fact that the process was always in the presence of, and on account of the presence of numerous minute organisms having sexual arrangements (unless these had parasitically suppressed) and producing spores. But how absurd it would be to call this contribution of facts, by Pasteur (and others) the formulation of a theory, or the establishment of a law.

Let me here remind you of the essence of inductive reasoning in Bacon's own words—a rule which has never been successfully evaded:

"The form which is sought can be detected only by a process of exclusion, by which we find a phenomenon constantly present when the effect is present, absent whenever the effect is absent, and varying in degree with the effect. Such a phenomenon would be the form in question, the cause of the given effect or attribute."

According to this salient definition is the *causa causans* of decomposition the microbe? Most certainly not. Therefore, we can have no microbe theory of decomposition. The reason is that in the application of the Baconian method we find there are two conditions under which the microbic influence is futile. The first, such a state of matters as may be fully illustrated by the homely instance of well-made jam—an illustration full of the most intense interest, when studied in the light of recent facts of bacteriological research.

The second and constant exception is when the solution of organic compounds maintained at a certain temperature with free access of air is at the same time endowed with *life*. The most delicate organic compound thus endowed, known to me, is the medusa. So long as it can maintain its rhythmic movements it can defy the germ spores and the fully developed animals whose work

is decomposition. Let these rhythmic movements cease and they remove all trace of it in a time which may almost be stated in minutes. The processes of decomposition and disease are, therefore, not the same, as some of the earliest and wildest of the germ theorists boldly asserted. These were chiefly the surgical antiseptic ists who attributed to *all* germs *everywhere* a powerful pathogenic influence; and who, therefore, devoted much ingenuity, and all their energies, to make their conduct harmonize with this belief, by sprays, veils, douches, etc., etc. A few of them still remain.

But if we proceed on true Baconian lines we find that not only are the phenomenon of decomposition not those of disease, but that there is absolutely no analogy between them. Some appearances of analogy there are, but they are easily destroyed by careful examination. Thus, take the huge carcass of an ox, let it lie in the field till the phenomena of decomposition are observed beneath the eyelids. At the same time they will be found active in the pericardium, though all possible communication by blood current between these two such remote spots has been destroyed.

The conclusion from the facts above is inevitable—that the spores of the animalcules of decomposition are always present in our bodies, and in the bodies of animals, and that they commence their victory at once after death (and probably not unfrequently before it): How else can we explain the familiar phenomenon of a piece of meat half cooked to make it keep going putrid in the uncooked middle and keeping sweet in the cooked outside? This is a fact known in domestic science for all time, and did not need the elaborate researchers of the bacteriological school for its re-discovery. Many of these researchers would have been saved much trouble if they had studied for six months under a housewife before they went to the laboratory.

Throughout the whole nomenclature of disease I know of none which affects the whole mass of the living body at once and at a blow, as does decomposition.

Of course the sciolists will at once shout out "the exanthematic fevers," but for them the circulation of the blood makes the difference.

They are probably diseases of the blood as is shown by the modification of the functions, or even the entire suspension of the functions of the great viscera which is so preëminently characteristic of all of them. If it is the blood which is their nest the whole body is of course only *apparently* affected by the diffusion

of that part of it *really* affected throughout its whole, and, therefore, the supposed analogy fails.

Again and again the analogy fails in directions which I cannot follow, partly for want of time, partly for want of knowledge of detail, so I content myself with such illustrations of the defect as variations of degree; selective attacks based apparently upon the most eccentric considerations or, rather want of them; the occurrence of epidemics, and countless other points which are wholly irreconcilable with there being any analogy with which the vagaries of exanthematic diseases and the hum-drum uniformity of the phenomena of decomposition in dead tissue.

There is another fact, or rather two, on this the negative side of the argument, not unworthy of the enquirer who has an open mind on this subject—and that person belongs to the small minority of the profession at the present moment. The first is the really small value to be attached to the great bulk of what the bacteriologists are pleased to call original research, owing to the flat contradictions they give to one another, a trenchant illustration of which I shall shortly give you.

The second is that it is quite possible that they are all putting the cart before the horse. It has been my business to follow the researchers on the bacillus of tubercle with great care, because I have objected to a group of cases of abdominal disease being designated "tuberculous peritonitis."

Opening and draining these cases cures the majority of them; and in the characteristic "tubercles" of a great many of my cases the "bacillus tuberculosis" has been found, whilst in others it has not. Many of the former have been amongst the recoveries, and some of the latter have been amongst the cases which ultimately died of the advance of the disease. Hence, I conclude that the characteristic bacillus of tubercle (about which I am sure there can be no doubt whatever that it exists) is a product of the disease and not its cause. The experience of abdominal surgery seems to me to admit of no doubt whatever on this point, and it is certainly supported by the facts of the symmetrical and selective location of the disease, of the enormous proportion of cases of it really and permanently cured, of its age periods, its symmetrical distribution, and many other points on which I should like to talk for hours. Not one single fact or observation in the vast array of literature on this subject goes even to support a hypothesis that the bacillus is a *causa causans* of the disease. If it were so how could any of us escape?

The whole of the phenomena of the tubercle bacillus, as they are known to me, are capable of a very simple explanation, and I advise some of the workers to start a research on this hypothesis: that the tubercle exudation is an unorganized material of feeble vitality (or perhaps like pus, of no vitality at all), and therefore capable of resisting the attacks of the ordinary bacilli of decomposition but feebly, and that the bacillus of tubercle is but a sport of some more ordinary form produced by a fresh soil. This sport may, by reason of constant feeding on appropriate soil, have become possessed, not only of specific form but of specific powers and finally a secondary habitat. All these suggestions are actual and well-known facts in the life history of many parasites—such as the fluke. Like the case of the fluke such a supposition would bring into order the climatic and localized increments of tubercle, as at Salisbury; its apparent contagiousness, and most of all its hereditary tendency, which is certainly not a fact that can be brought within the present microbic speculations.

I propose now to leave the side of negative argument—always a process full of difficulties and possibly never complete—and deal with a more positive battery of attack. I mentioned at the beginning of my paper the use of electrolysis in gynecology, and the suggestion I used that its powers should first be proved on diseases accessible to easy examination with indisputable results—such as a whitlow. I propose for the examination of this "germ theory" to look closely into an analogous position, and I have followed therefore with the most intense interest its development in the field of dermatology.

The skin doctors have speedily arranged themselves into two camps, germists and anti-germists. They have quarreled and slanged each other like gynecologists, and have settled nothing.

When it is seen that the great bulk of the phenomena of diseases of the skin are under their naked eyes, that these may be supplemented by simple, harmless and perfectly justifiable experiments and perfect optical appliances, it is most disappointing to find that the whole and sole results are numerous changes of nomenclature and the blatant advertisement of nostrums—some of them approaching quackery so closely that no other term is applicable to them.

Let me take one of the most common and, from the side of the germists the most simple of all skin diseases—eczema, a very common ailment about which there ought to be as little mystery and

as little difference of opinion as about any possible disease. At the very outset the difference of opinion amongst dermatologists show upon what slender grounds the germists stand. They are not agreed as to whether it is of local or constitutional origin. At Bristol they had a field-day on this question; the President of the section boldly declared for its origin in parasitic affection, all constitutional relations being entirely secondary. Dr. Unna of course declares in favor of microbes or the *causa causans*, the way for there being paved by a seborrhea. But the Dutch Professor forgot that the seborrhea itself is not without a *causa*, and must be explained as a preliminary.

Another school, led by Dr. Myrtle, is in favor of its neurotic origin, and declares that microbes have nothing to do with it. It is clear that if we cannot settle this question in the case of eczema, there are few cases where it is capable of settlement.

But there are many facts from which we may draw side lights, and by the application of the Baconian system of reasoning show that it is impossible to accept the microbic origin of the disease.

First of all it is clearly selective in the great bulk of cases, that is, it takes up its abode in certain parts of the body, its extent is limited, often very strangely, as at the back of one finger, and it is very often absolutely symmetrical.

It must be quite apparent that every disease which is selective must have its *causa*—that is, its governing *causa*, either in the nature of the tissue affected, or in the innervation of the tissues. As the skin is uniform, or practically so, in its construction, it is only in the innervation of the skin that the peculiar selective characters of eczema can be explained; and the strongly marked tendency toward symmetrical arrangements of disease are capable of an explanation through the nervous system, and that only. Mere blood channels cannot explain it.

Eczema is not capable of being conveyed from a diseased person to a healthy one indefinitely. Even when it does appear, as it seems now to be appearing in London, in epidemic form, its appearance is strictly limited to those in whom defective nerve nutrition is most apparent.

Even, therefore, if all the authorities admitted the universal presence of the culpable microbe—and the authorities do nothing of the sort—according to Bacon's law the *causa causans* of eczema is not the germ, nor the microbe, but the soil in which it is permitted to grow, by the conditions into which that soil is permitted

to pass by some real cause over which it is probable the nerve centers have control. The germ is a mere agent, at the best one of many factors and by no means the chief.

That I have pressed, and press to the uttermost, the initial difficulty of the application of the phenomena of germ decomposition in substance already dead, might begin to weary you, were it not that fresh light can be brought to bear upon the subject from tissues that have passed from life to death, but still remain attached to the body—cases of epithelial strictures like the hair. The hair possesses no phenomena of life, apart from its point of growth, yet it has a pathology of the deepest interest; and I read Dr. Leslie Roberts' paper in a recent number of the *British Medical Journal* on the pathology of vegetable hair parasites with the extremest interest, because it was a phase of the dermatological investigations getting as near the laboratory flasks as seems possible. His first sentence, however, was so completely in harmony with my own previous rendering, that I feared I should get no fresh light. He says: "Considering the amount of research which has been given to the vegetable hair parasites since the days of Gruby, it is surprising how little progress has been made in the direction of real knowledge." And he goes on to show that, as far as results and methods of enquiry, they are no further advanced than botanists were in the times of Gussieu and Linnæus, and that the philosophical revolution affected by Darwin has not yet reached them. They have as yet got no further than species-mongering, and in this respect he speaks, and speaks most properly, of the scientific abuse of the method of culture as a method of research. I wish amongst the culture researchers of general pathology such another Solon would arise, and put an end to the multitude of drivel that is made to center round the culture tube. He says: "The scientific absurdity of this method becomes apparent if we suppose an analogous method adopted towards the higher plants. What should we say if an investigator provided to classify the trees in an orchard by the shape of their branches or the color displayed by their fruit? This logic, as De Bary says, does not change with the size of the objects or with the apparatus and manipulation." Further, Dr. Leslie Roberts says: "Even the successive memoirs are self-contradictory to some extent, and no wonder, for they appear with a rapidity which is unusual in scientific research, and suggest to the reader the necessity of reserving his judgment." "Many of the opinions maintained so strongly have passed into

medical currency with very little enquiry on the part of those who have received them." All this is pretty strong language, but not half so strong as, in my opinion, the occasion justifies. I have not followed in practical criticism, as Dr. Roberts has done, the work of those to whose conclusions he raises his possible objections. But I have risen over and over again from the perusal of such papers as he names, with a feeling of the saddest kind, that this ephemeral nonsense is what passes for science with the bulk of the present members of my profession. It is carried on without regard to the first principles of Bacon, and with an utter disregard to the teachings and examples of Darwin. The very fundamental teachings of the evolutionary school of biology are brushed aside, and the great text-book of Sach's might as well never have been written.

By one sentence Dr. Leslie Roberts puts aside all the conclusions of the researches on hair parasites. "It has not hitherto been pointed out, so far as I know, that these fungi attack only domesticated animals; but this, I believe, is the truth." Here is one great fact which knocks the germ theory on the head with an insistance that the ground should be gone over again by someone who has a logical mind. Certainly without that we cannot accept a single conclusion of the germ hunters concerning skin parasites and that on a ground where the research would seem to be reduced to its most simple and least complicated form.

The fact is that we are clearly neglecting the main statement of our enquiries, and if we are ever to find the true answer we must make the first line, as in algebraic equation: Let $x =$ the condition of the soil in which it is possible for a spore or microbe to grow—even if we grant, for the sake of argument, that they can grow at all.

Let me make a little more clear what I mean by an example taken from natural history. It is perfectly well known to all observers of nature that within a very few seasons of the openings of subsoil by such a process as the cutting of a railway embankment, plants not previously known in the particular locality will spring up in abundance. Those of us who have ever made new gardens out of old turf turned up will remember the amazement at the kinds of new weeds which the digging and trenching brought up, to the very margin of the last spade hole, and the extraordinary vigor of growth of the first of the new comers.

In some cases, where careful research has been made in the case of railway cuttings, the new plants have not been found as old

inhabitants within a hundred miles of the new surface. Would a germ theory suit this case? Certainly not! Did they wash out the new soil and carefully hunt for the germs and indefinitely breed them by culture experiments? Certainly not! They never troubled themselves. For a time there seems to have been a suggestion that the seeds were blown from a distance, or carried by birds, but this was speedily settled by the enormous number of plants which grew at once—far more than could be explained by seed blowing; and the phenomena were accepted to be due to the saturation of the soil and subsoil with seeds of plants of species which had long died out in the neighborhood, such seeds when properly protected having a vitality indefinitely prolonged. It would be difficult to understand a vast host of the phenomena of vegetation save for this hypothesis.

The *causa causans*, then, in our phenomena of the fresh clothing of the railway embankment is the turning up of the soil. It is the one cause without which all others are of no avail; without this new condition of the soil those seeds would have remained dormant, as have done the seeds of the reeds and palms of the coal measures, till they died, to be seen again only as geological specimens in the cabinets of future paleontologists.

The favorite hunting ground for the modern microbe catcher is a disease which presents the phenomena which have been very properly and, for my purpose, very aptly termed zymotic. There is a tendency to drop this most useful word, and I have no desire to argue for its retention save my dislike to those constant, unnecessary and most misleading changes. "Zymosis" is quite as false as any of the old or as the new attempts at definition. It arose from the rough analogy which was drawn between the rhythmical phenomena of the brewer's vat, with its exaltation of temperature, and the conditions of certain diseases. Surely amongst these diseases the germ theory ought to be established? My answer is, most certainly not; among these least of all, and for many reasons, though mainly for one. Take a hundred vats, with their solutions of sucrose, glucose, diastase or starch, and drop in your germ and you will get results absolutely answering to Bacon's law, "the phenomena constantly present when the effect is present, absent when the effect is absent, and varying in degree with the effect." Pasteur's wonderful elucidation of this law in the process of brewing and wine fermentation, and the enormous financial benefits which he conferred on those trades were the cause of his leading

so wildly astray the young doctors who had never studied Bacon and were incapable of grasping the fact that whilst Pasteur might be wholly right in the brewing vat, it required a re-arrangement of the syllogism to carry the argument to the human body. Take 10,000 human bodies all perfectly alike, as far as we can see, and drop your germs of typhus about and see what will happen. The first remarkable fact to be found is that if the bodies are in Birmingham there will probably be no effect at all. If they are in Edinburgh no effect, or very little will be seen in the new town; whereas in the old town some commotion will result and there will be about a hundred cases of typhus. These will be distributed in various centers with mathematical proportion, and probably no two cases will be exactly alike. Clearly, then, according to Bacon, the provocative case lies not in the germs.

Typhus is the one exanthem, the only one, about which it seems safe to argue: we know probably as much about it as can be known till some perfectly new method of research is opened to us for all the others, or at least until one of our present clumsy methods is very much altered for the better.

The Baconian method of research involves a consideration of *all* the leading features of the subject matter. The ordinary method of what we now call scientific research is to lay hold of one fact, ride it to death, then to ignore all others.

I think it will be admitted that medical students, like students of all other human arts, are apt to swear upon the words of their masters and very faithfully reproduce their views.

During the term of my curriculum one of our stock subjects of debate was the question as to the nosological separation of typhoid (or as it was more usually called "dothen enterite") and typhus fevers. The most enlightened of our teachers put the typhoid cases in his general wards with the result that they nearly all recovered. Another of the old school put them in the fever wards with the result that they often died of the second disease when convalescent, or almost so, from the first. He overlooked the one great fact, which was patent even to my juvenile mind, that a patient with typhus was either dead or practically well on the fifteenth day of his attack, whereas the fatal symptoms of the typhoid might not supervene till the third or even the fourth week. Since then typhus has been studied with more satisfactory results, and a few of these show that though it was of old and is equally now certain that it is conveyed by the impress of a germ, or

poison having the life history of a germ-producing organism, very analogous in its proceedings to the germ of yeast, yet that this organism is perfectly inert when distributed on a soil not responsive to it. The cause of the disease is not the germ or organism arising from it. The cause of the disease is simply over-crowding of population beyond a point ascertained with an accuracy like that of the density bulb or the thermometer in the brewer's vat.

As clinical clerks and resident medical officers in the old infirmary of Edinburgh we know this quite well. Given a case of hemorrhagic typhus, or one in which subsultus tendinum occurred at once, we knew within a narrow limit of error from what part of the city it came. We knew that so many hours' work in the fever wards would give us a headache, and that unless we had our evening's spin round Arthur's Seat our six months' appointment would not pass without our falling permanently victims to the disease. In one of the sessions there were fifteen out of twenty residents in the three great centers of typhus in Scotland, Greenock, Dundee, and Edinburgh, fell victims to the disease, and eight of them died. So awful was this that appointments were made afterwards only of men who had already gone through the ordeal; yet the disease did not spread out of its nests.

The eminent medical officer of the City, Dr. Littlejohn, has solved its riddle, and has practically demolished the disease. He began its study about 1845, and he tells us that in the great outbreak of 1847-8 there occurred an outbreak of which over 6,000 cases were treated in the infirmary alone, and how many outside can never be known. The mortality was awful, it can only be guessed at, probably being not less than 20 per cent.

The outbreak, to use Dr. Littlejohn's own words, "so frightened fathers of intending students and general visitors, that Edinburgh as a seat of a medical school, and as a residential city, was nearly destroyed." It acquired the name of the "fever city," a cognomen amply justified, seeing that at least 15 per cent. of its population were attacked within two years.

Active and energetic steps were taken, huge blocks of tenements were destroyed, dense populations were scattered and wide boulevards cut through the worst parts of the old town, and no such outbreak has since occurred. But the history of the extinction of the disease has been gradual, for such work as had to be done was hardly the work of one generation only. In 1857-8 the number of cases known fell to 139. In 1863 there were fifty-seven

deaths representing a number of cases to be given by calculation as about 350.

In 1879 the notification Act came into force, and the exact number of cases as well as the deaths can be given with great accuracy. The number fell steadily. In 1889 there were forty-three cases with nine deaths; in 1892, eighteen cases with three deaths; in 1893, six cases with one death, and this year, so far, there has not been a single case reported. (Two cases reported since this was written).

But this is not all, by any means. The fever districts were in the old town, the regions of Cannongate, Trongate, St. Giles and Cornmarket, having in 1861 an average population of 220 to the acre. By 1881 this was reduced to 166 persons to the acre, the interval representing the time of the chief clearness of the infected area.

The worst cases we had when I was a student were from the high lands of the Tron, where the population then was over 300 to the acre, and some closes in the Grassmarket where it probably was higher. Now the average population has been reduced to less than half, and the very worst places have been completely emptied and typhus has disappeared. Not a case of typhus has ever been known in Birmingham where no part has ever been populated to such an extent, and practically typhus is unknown wherever the population is below 150 to the acre, and it occurs with certainty when it is over 200. Its occasional manufacture by temporary over-crowding in army barracks, in ships, prisons, etc., has been illustrated over and over again till we are forced to the conclusion that the poison, whatever it is, is the result of the same cause as that which gives it its powers.

It is probably the germ of some very ordinary fungus, sporting with deadly growth from the pabulum afforded by the crowd, a suggestion made to me by the late Charles Darwin. At any rate, in this case the fulfilment of Bacon's canon is complete. The phenomenon, a population above a certain density, is always present when the effect, typhus fever, is present. It is universally absent when typhus fever is absent; and the effect, typhus, varies in degree with the degree of over-crowding. The phenomenon, over-crowding, is, therefore, the form in question, "the cause of the given fact or attribute." Littlejohn's facts and figures prove the law of the appearance and existence of typhus, the law of its variation, and they have established the fact of its extinction. You

may as well establish a germ theory for this awful disease as for a leg of cold mutton.

Not only is the argument from etiology one of the most complete and perfect kind, but it is supported to a most remarkable degree by many clinical facts. Thus Russell, Murchin, Christison and Wilson all agree upon certain facts (and no one has even disputed them) that typhus arises *de novo* upon appropriate provocation. Its germ is, therefore, certain to be a sport, forced by the conditions so well described by Howard, and we should expect that the conditions of sport being removed it would speedily lose its temporary malignity and return to its ordinary and probably quite harmless form. This is entirely supported by the fact insisted upon by all authors, that the contagion of typhus does not carry far, and is completely and speedily killed by cleanliness and an abundant air supply. Murchison lays special stress on the small risk to attendants on the fever-stricken if these conditions are fulfilled.

All these facts are wholly contradictory of a "germ theory;" for even if a "germ theory" were accepted in this case we should immediately point out that the germ was only a temporary existence, and that we have an already well ascertained cause of its existence. It, therefore, must disappear from the argument, save as a mere stage of a process.

The facts of no other disease of the zymotic class are sufficiently well known yet to form the basis of complete argument, and we shall not arrive at these necessary facts by mere germ hunting, however interesting and important an avocation it may be.

I now come to the crux of my discussion, the application of the so-called germ theory to the practice of surgery, and to an explanation by it of the want of success in surgical practice, which ought to be and has been often and most successfully laid out on other grounds altogether; and to an explanation of modern success and advances in surgery alike erroneously attributed to the "germ theory" and the so-called antiseptic surgery.

I must again remind you of a fundamental rule of logic, that "it is absurd to assert that to be a cause which can be at the most only one of several factors, especially when it can be shown that it is by no means the most important in the extent of its application." Indeed it must be self-evident that any factor which would be important enough to constitute of itself a "theory of disease" must be not only of universal application, but when it is one

of a series of factors it must be overwhelmingly the most important.

The great fact of typhus, for instance, as Littlejohn shows overcrowding, is universal and necessary, and ever present. It is as the apodyctic logicians would say, "το καθόλου" the universalizing element, bringing all others under it, and the "το ςυλλόγον" impossible without it. All outside it is mere dialeticism and may be disregarded.

But we cannot treat the surgical division of my subject in this way, for we do not know a universalizing element, though there is one, the same as in typhus, which comes very near indeed.

But the logician has many weapons, and Euclid is full of logical devices. He asks you to believe that if two circles have the same radius they must have the same diameter, circumference, and included area. Provided again, there is not a fourth dimension in space, he proceeds to prove this proposition to you by asking you to assume that it is not so. You super-impose your two circles, and by the construction of a pair of triangles Euclid shows you the true state of affairs by a *reductio ad absurdum.* The true bearing and marvelous applicability of this method of reasoning generally departs with our school days, and its application is entirely absent in the literature of medicine and surgery—else half our text-books were never written.

In byegone times there used to be a very prevalent, and even now there is a far too prevalent disease of protean form which infested, and does still infest, the surgeon's work. We used to call it surgical fever, pyemia, sapremia, and now it is called septicemia—all of which names were coupled with certain doctrines, about which I shall not trouble you. It always was more or less closely associated with views about inflammation. A doctrine of the past generation was that inflammation was *sthenic* and *asthenic*, and that our present malady was associated with the latter form. Then came the discovery of the germ factor in the process of putrefaction, and the explanation of the methods of sterilization, and a false conclusion was built up concerning surgical practice, that the ill results were due to the entrance into wounds of the germs of putrefaction. Then a few special, or at any rate special-looking germs, were identified as the particular germs to be dealt with, but unfortunately for them Bacon's inevitable law throws them out of court. The far more logical position was the assumption that the ever and everywhere present common or garden

germs were the cause of the trouble, and by far the most logical method of dealing with them was the spray. It looked so logical, and it was imposing that there is no wonder it rushed headstrong into popularity.

I christened it "The Royal Road to Surgical Success" for two reasons. First it promised so much, being in itself so easy, and it got its inventor a title by favor of royal admiration.

I laughed at and ridiculed it, and now it is pretty well done for, and to the detriment of nobody but the surgical instrument makers.

But that very spray was the cause and means of a discovery by Lister so great that he deserved everything he got in the way of honors, though he did not understand it at the time. I don't think he yet understands the greatness of the discovery he made. I have never tired of pointing it out, but I have never been fully listened to; and when I hailed with triumph the complementary discovery of Hamilton and sponge grafting, I shouted to deaf ears.

Lister's discovery was like all great things, very simple! It was only this, that a blood-clot may and under certain circumstances does retain real life; or at least it is so far removed from complete death that if aided by preservatives it will increase in vitality and be even finally, as we say, organized.

He filled a big hole in a man's heel with protected blood-clot: he kept out the common or garden germs and that blood-clot got organized and filled up the hole. Of course it must not be forgotten that all these phenomena were known in domestic science for centuries before, but their surgical importance was not recognized: and certainly Lister's discovery was new in so far that it referred to blood-clot not covered by skin or other living tissue, but directly exposed to air—air altered and deprived of its dangerous elements. Then comes Hamilton who showed that material actually dead—dead beyond all question—could be so prepared as to adapt itself to tissue of the feeblest kind, granulation cells, could be used by them as a temporary endoskeletal arrangement and removed by them by the common process of absorption when they were no longer in need of it.

This led to many practical results which do not concern me now. The two facts however are so valuable in countless ways that though they are all that is left of the original germ theory as applied to surgery, it was worth all the worry and trouble to get them. Immense efforts have been made to explain them away—

because they have become real stumbling blocks to the real earnest germ-hunter and he would gladly have seen them upset. The last and perhaps most skilful is the phagocyte hypothesis. But as phagocytes cannot move through a blood-clot they do not meet the one great fact of Lister which has stood and still stands against all attacks.

The misfortune is in that he did not read his discovery aright. He concluded that what could make the difference between a blood-clot organizing and one breaking down in decomposition, the ordinary germs of decomposition, were enough to break down and destroy the union of a stump, and finally life itself, after surgical operations; and hence he devised his innumerable and most ingenious contrivances.

He knew from his laboratory experiments that probably a single spore was quite enough, if admitted to a sterilized flask to set all its appropriate contents into a condition of putrefaction; and permeated by a false analogy he concluded that a single germ was equally potent in a surgical wound. He believed that the two circles had equal radii, and that therefore the diameters and other attributes would be the same, but it was not so. At any rate the resulting triangles constructed on the radii did not superimpose. For example, the wounds of shaving were open to germs equally with those of the surgical knife. I have no doubt being a very clumsy barber I have implanted myriads of these germs with fresh wounds in my skin, over and over again, yet no septic results have followed in me nor in the myriads of my fellow-sufferers. But Lister's more logical followers did not see things in his light, and they pushed their arguments everywhere and followed it by their devices.

Thus in a recent number of the *American Journal of Obstetrics* a certain Dr. Allen tells us that he divides the umbilical cord about two and one-half inches from the abdomen, wipes it and the cord with a bichloride solution, firmly secures it with a sterilized ligature, and touches the cut end of the cord with a bichloride tabloid.

Sterilized gauze, sterilized bandages, and a properly sterilized cradle and nurse secure the recovery of the germ endangered baby. Dr. Allen winds up with this final precaution, "Of course the surgeon should prepare his hands as for a formal operation," and no doubt a formal operation fee is charged after the danger is all over.

Here is a case of *reductio ad absurdum*, both in a popular and logical sense. He omits the major premises of his arguments, which would be of course that by his ridiculous proceedings he has saved the lives of countless babies. But his position is the inevitable and wholly reasonable conclusion of an adaptation of this so-called germ theories to the practice of surgery. But I super-impose my circle on his and find the radii and all features are the same in that his factors are out of court, and the verdict is *reductio ad absurdum*.

Similarly and more seriously, but with a result quite as absurd, let me take another recent paper by an American surgeon on "Lacerations of the Perineum"—a subject on which I think I am entitled to speak.

I have tried to estimate how many reparative operations I have performed on the perineum, and I find that it cannot be much short of 1,500, as in one year I have records of 226, whilst for many years I kept no record of them at all, and do not now. If we take them at a thousand it will be enough for my purpose. I have all the records of death certificates that ever occurred in my practice, and there are only two deaths associated with that operation in all my work. Both were old women nearly seventy, on whom any operation, however slight, would have been serious, and in one certainly death occurred from a cause, apoplexy, not a result of the operation, not dependent at least on the question now to be submitted. My mortality, in its greatest reckoning, in this operation, is under .02 per cent. My American friend who criticises my proceedings in most unintelligent and almost unintelligible fashion, gives his own mortality as over 5 per cent. and gives the following rules for operation :

Before and after every operation, wash all instruments in very hot carbolized water, and during every operation keep all instruments immersed in carbolized water. Sutures and ligatures, if of silk and silk-worm gut, are boiled in a dilute solution of corrosive sublimate, and kept immersed in the same until used. Cat-gut is soaked in oil of juniper and preserved in alcohol.

Always bathe denuded surfaces, both before and after approximation, by suture, with a solution of 1 to 10,000 of corrosive sublimate.

Always destroy sponges used in any operation which admits of the possibility of their being contaminated by septic fluid.

Irrigate the vagina daily if there is a discolored or offensive

discharge. Prevent the introduction of septic germs from without by covering the vulva with a pad of sublimate gauze, which is to be changed as soiled.

Before every operation let the operator and his assistants cleanse and disinfect, not only the part to be operated upon, but also their own hands and arms, in order that every possible suspicion of septic infection may be removed.

This writer is clearly carrying his convictions to their logical conclusions, but that neither are his convictions based on fact nor his conclusions in the least degree necessary is proved by the fact that my mortality is less than his as one is to 250; yet I never in this operation used a single precaution such as he believes to be essential, nor anything approaching to them.

We have therefore here the so-called "germ theory" and its antiseptic precautions knocked on the head by one of the main features of Bacon's law, that the effect in the most intense degree is constant when the alleged form is absolutely absent, the effect produced without the cause. There may be among you some who would assert that neither division of the umbilical cord nor repair of a damaged perineum are sufficiently serious operations to make any mortality at all. There is then no truth in this alleged germ theory, for the logical deduction of that theory is that the entrance of a germ or germs to any wound whatever is capable of producing systemic septic evils and death. But we must carry the matter further, and into the realms of more general surgery; for has not our President said:

Lister "proved conclusively, and his proofs have been confirmed by many others, that ordinary cleanliness in the dressing of wounds, either made or treated by the surgeon, was not sufficient, but that the use of some kind of antiseptic was absolutely necessary to avoid the risk of septic infection."

Now, sir, you have seen a good deal of my operation work, and I challenge you or anyone to say that they have even seen anything about it save absolute cleanliness. Since the time—nearly twelve years ago—when I ran through a sham Listerism, ending with cold water spray, never has anything in the shape of antiseptic been used in the treatment or dressing of wounds. Yet my published statistics have not yet been either contravened or beaten in their record.

Lister has admitted these two facts, and has pathetically pleaded that there is something in the abdomen which transcends

his chemicals. My answer is, it is not so. The abdomen is the only region yet where we have had competing and perfect statistics. I have challenged Sir Joseph over and over again to produce his operation statistics, but with a lordly indifference, or something else, he pays no attention to the challenge. We are constantly hearing from his followers as to the marvelous improvements in results obtained under each and every new phase of the details as they come out; but before they are six months old they are pronounced failures and something new has its turn. The last of all of these numerous phases is the disuse of all chemical destroyers of germs and the abandonment of "antiseptic surgery," and the adoption of "aseptic surgery," the perfect cleanliness which I have been preaching for years; and, forsooth, this is then the "newest Listerism."

But in order to bring logic to bear in the discussion again, let us go back a generation—I have seen it out all but two years, for I am now in my twenty-eighth year of practice—and see what major factors have contributed to surgical success, if success there has been.

First of all, has there been success in the sense that what we may call *coarse* surgery is more successful than it used to be. I do not use this word at all with any disdainful intent; I only mean the class of surgery anybody may do, such as amputations. The finer surgery, such as ophthalmic work, operations for hernia, ovariotomy, tying of arteries, etc., depend so much on the personal skill of the operator that they cannot with success be used in such an enquiry. Besides, in general hands they are not numerous enough. Amputations, especially those for disease, form by far the best test. But can we find them so as to put them up as a test? I think not; certainly I have failed to find them, and the writer who puts them forward, would do infinite service to surgery.

Let me see a list of 500 amputations below the knee for disease, done under fairly good circumstances, and without any of Lister's dodges; and another list of 500 under equally good circumstances, but under the completed system of germicides last announced, and most believed in, and we might get some notion of the value of the latter. The mortality of the second list would have to be less than 5 per cent. before we accept it as worthy of what it pretends to be, for that mortality is proved to be nearly the normal mortality of the operation in question and all mortality above it is an illegitimate excess.

As I look back at my early experience of surgery my wonder is that I ever stuck to it. In Edinburgh, during my pupilage from 1861 till 1866, I saw some thirty ovarian and other abdominal tumors removed without one single recovery, and I left the land of my birth with one fully made resolution, that I would never open an abdomen. In Edinburgh, if I saw an amputation of the thigh in the Old Infirmary on a Wednesday, there was a strong probability that in the following week I would see the bared bone sticking up through the anterior flap.

If a breast was removed, an erysipelatory reddening of the flaps would very probably occur on the third day and be half way round the chest before the week was out, the wound gaping, and everything going to the bad. Erysipelas indeed was rampant.

I left Edinburgh and have been engaged continuously ever since, with very slight interludes indeed, in making wounds, till they have mounted up to many thousands, and I have never seen a case of erysipelas in my own practice, not one. This, of course, gives exactly the other side of the picture, and an enormous improvement. It does not in any way belong as a result to chemical germicides, because I don't use them, and never did, save in the few months of the experiment above alluded to.

In what lies the improvement? The answer is simple; it lies in separation of patients; plenty of cubic space and fresh air. The road to this conclusion was opened by Simpson, in his book on "Hospitalism;" he shows that the mortality of amputation below the knee for diseases diminishes, as did that of all amputations, just in proportion to the size of the hospital, and the crowding of the patients which naturally resulted.

This was confirmed by my own research and independently by others. It would then clearly need, according to Bacon's canon, to be shown that by chemical antiseptics the mortality of this operation is brought down in the largest class of hospitals lower than it is in the smallest before the slightest credit could be given to it. Since then most of our large hospitals have been rebuilt with the most extensive improvements, and it is truly pitiable to look at the records of mortality of some that have not. Amongst the latter is King's College Hospital, and the records there (I have had a private glance at some of them) are so bad that they dare not publish them; at least, I have challenged them to do so for the last sixteen years and they have not done so. Even in cases where these large hospitals have not been rebuilt, their surgical over-

crowding has been remedied by the building all round them of small hospitals, no better example of this being possible than the change effected in our own city within these last twenty-five years.

The conclusion of the argument is that this surgical scourge is but another form of typhus—a view which is by no means a novelty—the result of over-crowding wounded and discharging surfaces. The results of experiments—generally on a scale of ghastly magnitude and with dreadful results—have shown that without over-crowding the effect is rarely present; with overcrowding it always is: and above all things the experiments of irritating surgery have shown that just in proportion as the intensity of the cause, so is the effect varied. All the clinical facts spoken of, concerning typhus, bring out the analogy with increasing strength.

It was Simpson who cried out after Howard against over-crowding in hospitals. It was Simpson who cried out most loudly for better ventilation and cleanliness, and against the use of dirty hand and sponges.

It was he who taught after Semelweiss the doctrine of contagium vivum in midwifery, and appealed for the aseptic treatment of lying-in women. By anesthetics it was Simpson who made all our modern surgery a possibility.

He has been dead hardly these five and twenty years, and all this splendid work is as much forgotten as if it had never been done, and the glorious progress which has come out of it is given to a theory which is no theory at all but a phantasm, to a system which has been proved an inconstancy and a broken reed—a thing which yields at every blast either to scholastic logic or eclectic experiment.

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Grassow (*Centralbl. f. Gynäk.*, No. 43, 1894,) recently exhibited at a German medical society a parovarian cyst which had contained twenty-five pints of fluid. The patient had gone to the end of her eleventh pregnancy. The tumor caused a marked distortion of the child's skull. Fourteen days after delivery, ovariotomy was performed. The bulky uterus, in imperfect involution, gave great trouble to the operator. The base of the cyst, being sessile, was with difficulty detached; the pedicle required very careful ligature, or rather suture. Grassow concludes that, whatever may be said for ovariotomy during pregnancy, it is not right, save when urgent symptoms appear, to perform that operation after delivery till involution is complete.—*British Medical Journal*, November 10, 1894.

# HYDROTHERAPY IN APPENDICITIS.[1]

By GEORGE E. CLARK, M. D., Skaneateles, N. Y.

Hydrotherapy in the treatment of appendicitis is by no means new, but I feel sure the subject has not yet received due attention.

From the opinions expressed by more than twenty physicians writing upon this subject in our journals, and from a perusal of the articles upon appendicitis in five recent text-books of medicine, I gather that the use of water is sometimes ignored, sometimes condemned and never mentioned favorably, except in the most casual way, when it is advised for the purpose of moving the bowels.

*This*, I maintain, is *not* doing it justice!

I shall endeavor to show you, by a report of seven consecutive cases treated and cured by the use of water alone, that there is more in hydrotherapy than the simple moving of the bowels. Osler, of Baltimore, says: "Briefly stated, localized pain in the right iliac fossa, with or without induration or tumor, the existence of McBurney's tender point, fever, furred tongue, vomiting, constipation or diarrhea, indicate appendicitis."

All of my cases had localized pain in the right iliac fossa, induration or tumor, McBurney's tender point, fever and furred tongue. Some had vomiting, all had diarrhea or constipation, or diarrhea followed by constipation.

The treatment, in each case, was as follows: Cloths, about four inches square, wet in cold water, were applied to the right iliac region and changed, if necessary, every three to five minutes, until the pain was completely relieved. Cold, *not warm*, water enemata were given every one to three hours, night and day, according to the severity of the case, and continued until the cure was complete. In some cases, an initial dose of phenacetine was given, where the temperature was high, but beyond this, no medicinal treatment whatever was adopted. The patients were all put upon a liquid diet until convalescent. The following is a brief synopsis of the cases:

Case I.—F. B., farmer, *æt.* 46. The attack followed severe effort in lifting accompanied with a blow from the handle of a plow. About twelve hours later he became conscious of pain in the right iliac fossa, which soon became severe and was accompanied with excessive tenderness; so much so that he could not straighten up. When seen by me

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

the next day he was in bed, lying on his back with the thigh flexed, complaining of pain on the slightest motion. Temperature was 100½° F., and the pulse not much elevated. Examination revealed an indurated area in the right iliac fossa, the McBurney point very tender, the abdomen neither distended nor tender, except in the region of the appendix; here, however, the least pressure caused great pain. The bowels were constipated, but there had been no vomiting.

Cold water externally and cold water enemata, at first every four hours and later three times daily, brought the temperature to normal in forty-eight hours. The induration and tenderness persisted for several days, but grew constantly less. For some time after, the man noticed a tearing sensation whenever an extra strain was put upon the muscles in that region, but there has been no second attack. I paid my first visit to this patient on the 15th day of the month, and my last on the 21st day—six days' treatment in all.

Case II.—Mrs. H., *æt.* 23, June 24th, was seized with acute pain in right iliac region, seeming to shoot down towards the bladder. The temperature was normal, there was no tumor or induration, and very little tenderness on pressure. I made a diagnosis of renal colic and relieved the pain promptly by hypodermic injection of morphia. I was called again the same day and was again obliged to resort to the hypodermic needle. On calling the next day I found the patient not yet well, but so much better that I did not visit her on the following day. June 27th, the fourth day from my first visit, I was called once more. I found the patient suffering great pain in the right iliac region. There was a decided induration and excessive tenderness, McBurney's point being well marked. The temperature was 103° F., the tongue furred and the bowels constipated. I began the cold water external applications at once, but she had no enemata until her mother arrived in the evening, after which time they were given every three hours. About forty-eight hours later the temperature was normal, the pain in the meantime having quite gone, and the induration had almost, if not entirely, disappeared. In this case a quantity of seeds came away with the enemata. I made my last visit July 2d, nine days after the symptoms, which I diagnosed as renal colic, five days after the positive diagnosis of appendicitis.

Case III.—Walter L., *æt.* 14, on the afternoon of September 25th began to have pain on right side of the abdomen, which steadily increased until early next morning, by which time it had become excessive and was accompanied by vomiting and diarrhea. At this time I was called. I found the boy lying with the right thigh flexed, holding the bed clothes away from his side with the hand. The tenderness was so great that the mere approach of the hand would make him flinch. The whole abdomen seemed tender, but this was probably owing to the dis-

turbance pressure caused in the iliac region. All the classical signs of appendicitis were present; the temperature was 105° F. There was a delay of a few hours in getting assistance, and, in the meantime, small doses of phenacetine were given to reduce the temperature. In this case the enemata were given at first every hour. In forty-eight hours from my first visit the temperature was normal, the tenderness almost gone and very little induration left. My last visit was made on the 28th, three days after my first call, and two days later the boy rode five miles over a very rough road without any pain or inconvenience.

Case IV.—This was a second attack occurring to the boy just mentioned. On January 14th, about four months later you will observe, after an afternoon's skating, he was taken with a repetition of his previous symptoms. Profiting by former experience, his treatment was at once started, and by the time I arrived, several hours later, he was somewhat relieved. His temperature was then 102° F., the induration was slight, if present at all; there was considerable pain; he had vomited and his bowels were constipated. No medicine was given. I made him three visits. He was well on the 16th, *i.e.*, in three days. I learn that he has since had one slight attack, but found it unnecessary to send for me.

Case V.—Miss R., *æt.* 18, was a case seen in consultation. She was taken ill September 24th with a chill, vomiting, diarrhea, fever, and pain in abdomen. Her physician was called on the following day. Within a short time she developed a decided tumor in the right iliac region, accompanied with excessive tenderness, especially over McBurney's point. She was treated with turpentine, morphine, some powders for her nausea and gradually increasing doses of quinine until six grains every two hours were taken. The abdomen was poulticed and the tumor painted with iodine. This treatment was continued for eleven days, the temperature ranging from 102° to 103° during the whole of that time in spite of the large doses of quinine which were given. On October 6th I saw her in consultation, and as her physician was about to start for the World's Fair, she was left in my hands. At this time the temperature was 102½°, the tenderness was great and the tumor could be seen very plainly. It was from three to four inches long and perhaps one and one-half inches wide. No fluctuation could be felt, although on account of the tenderness, deep pressure was not made. A rectal examination was not made. I continued the treatment for the first twenty-four hours. At the end of that time the temperature was one degree higher, and there was in *no* respect a change for the better. I then stopped all the medicine and the poultices. I gave one dose of phenacetine—five grains. I ordered constant cold water applications to the tumor and cold water enemata every two or three hours. I met with some opposition from the family, but I overcame it. At my next visit, twenty-four hours later, that girl's temperature was

normal and the tumor was fully half gone. In three days she got out of bed for a few minutes, and she had not a single bad symptom after that. I made her in all but seven visits. She has had no return of the trouble.

CASE VI.—Was also seen in consultation. W. H., carpenter, *æt.* 25. March 6th, at 3.30 P. M., he was taken with pain in right iliac region, accompanied with vomiting and diarrhea. His pain increased rapidly, and his physician was called at 7 P. M. The physician, from these symptoms and the presence of McBurney's point, made a diagnosis of appendicitis. The temperature was, at this time, about 102° F. He was given calomel as a laxative, phenacetine for his fever, and morphine for his pain. The abdomen was poulticed. The patient grew worse, and on March 9th I was called in consultation. At this time, the temperature, in spite of the phenacetine, was 102° F., and I learned that it had ranged from that to 103°. There was marked induration in the iliac region and great tenderness. I could detect no fluctuation. The poultices and the medicines were stopped, cold water applied externally and cold enemata given every hour. The temperature was reduced promptly and the pain and induration disappeared so quickly that, two days later, his physician reported that he was "kicking because he could not get out of bed." His physician made his last visit on March 15th, nine days after the inception of the disease and six days after the water treatment was begun. I have recently seen this patient, and learn that he had some pain, due to adhesions in the right iliac region, which persisted for a week or more after he began to go about; this gradually disappeared and he has since had no trouble whatsoever.

CASE VII.—Was seen after he had been treated for nearly a week by another physician. J. H., *æt.* 19, laborer. Six days before my first visit he was taken ill with fever, accompanied by pain on the right side of the abdomen. The pain gradually increased and was soon accompanied with vomiting and diarrhea. He was treated by a physician, but, as I saw only the patient, I can give no particulars of the treatment further than to say it was medicinal. The patient was not satisfied with his progress and I was called. I found him with a temperature of 103½° F. There was an indurated mass in the right iliac fossa, about the size of a small egg. The tenderness was marked but not excessive. For comfort, the thigh was kept flexed. The tongue was thickly coated and the bowels constipated. The cold water treatment brought his temperature to normal within three days, and his other symptoms had so far subsided by that time that I did not visit him again. He kept to the house for nearly a week longer, because of pain on his making certain movements. After this he went to work on a farm. When I saw him, about two weeks ago, he stated that he had been perfectly well ever since.

In reviewing these cases, it is worthy of note that, taking into consideration the comparative severity of the symptoms and the time which had elapsed between the onset of the disease and the first application of the water, the success of the treatment seems to have been largely in proportion to the frequency of the enemata. For instance, in Case I., where the enemata were given only every four hours and, later, thrice daily, the cure was slow and there was pain from adhesions, lasting for some time after. In Case II., where the enemata were given steadily every three hours, although the symptoms were much more severe, and not at first recognized, the *cure* was more prompt. In Case III., perhaps the most acute of the seven, the enemata were given every hour and the cure was still more prompt. In general, the same reasoning applies to the other cases. In Cases V., VI. and VII., in each of which other treatment had previously been tried, the striking and almost immediate improvement consequent upon the change could not be attributed to anything but the use of the water.

These enemata were not given for the purpose of moving the bowels, although they incidentally had that effect. They were given with the belief that they had some intrinsic influence upon the course of the disease, the proof of this being their greater efficacy when given more frequently—more frequently than could possibly be needed in order to empty the large intestine. Cold reduces temperature not only by the local abstraction of heat, but also by influencing the circulation of the part. It is likely that some of the water finds its way round to the cecum, but I doubt if much good is effected in that way. The upper part of the rectum lies in the median line at the usual level of the appendix, and they cannot be much more than two inches apart. Now, the application of cold water causes, at first, a contraction of the blood-vessels, which is soon followed by a dilatation, the dilatation being much more persistent than the contraction. Why may not this reactionary dilatation withdraw some blood from the region of the appendix and so lessen the inflammation there?

I am *not* a fanatic. I do *not* believe that cold water will cure *every* case of appendicitis. I *do* believe that surgical measures are *sometimes* necessary. I was rooted and grounded in the belief that as soon as the diagnosis could be made, the appendix should be removed. As to that, I have changed my mind. I now believe that *cold* water, used *early* and *freely* and *often*, in the manner indicated, should *first* be tried, and, if the symptoms do not

improve within twenty-four hours, surgical measures should be considered.

DISCUSSION.

Dr. N. S. Jacobson: If the committee will allow me a moment, I would like to say a word or two with reference to this paper. Personally, I must take exception to the conclusions. I do not think a case has been established of post hoc propter hoc by any means. As far as the foreign literature is concerned, we have reason to believe that fully 85 or 90 per cent. of all cases of appendicitis are presumed to be cured by medicinal treatment. That is to say, they recover spontaneously under some form of medicinal treatment. But the principle which is at stake is not well borne out, it seems to me, by the line of argument. If cold is to be used in this class of cases, it must be used as an anti-phlogistic, as cold cannot be beneficial in a case, for example, like one of the cases mentioned, which has run along ten or twelve days. Secondly, there is a question as to diagnosis in these cases, as, for instance, in one of the cases mentioned a large number of seeds were discharged. In the third place, there is a marked question as to whether you have your cold in contact with the diseased area. Now, what have we in this class of cases? We have in a group of cases simply a catarrhal indication of appendicitis. In a vast majority of cases you have perforations, ulcerations, you have thrombi existing and other disturbances occurring, and there is no reason to believe that the simple application of cold into the rectum at a remote point, or that the form of application of cold externally which is not accepted as a very good method of cold application,—as compresses externally,—there is no reason to justify us that we can depend upon this class of treatment. This matter is altogether of too much importance to be passed by lightly.

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Meningitis Due to the Bacillus of Typhoid Fever.—Daddi (*Sperimentale*, Juillet, 1894; *Revue Internat. de Méd. et de Chir. Prat.*, No. 18, p. 335) has reported the case of a boy, nine years old, who in the course of an attack of typhoid fever was seized with symptoms of meningitis, to which he succumbed. In the creamy exudate covering the upper surface of the brain and cerebellum, as well as in two small abscesses situated symmetrically at the level of the spines of the scapula on either side, the bacillus of typhoid fever was found in pure culture.—*Med. News*, November 17, 1894.

# SOME POINTS IN THE ETIOLOGY, PATHOLOGY AND INDICATED TREATMENT OF DIPHTHERIA.[1]

By A. A. YOUNG, M. D., Newark, N. Y.

Well do I remember the first case of diphtheria known to me. I was the victim, and my experience then gave me the impression that it was something more than a mere throat affection; an impression that has grown stronger even to the present hour. A few years later, the disease appeared in its most virulent form; deaths were then common; the skill of the physician was taxed to the utmost and that skill dependent upon occular perceptions and not upon thought induced by investigations; the physician could not say "I know, for I have mastered," but rather, I act as I have been told to act. As the membrane was the first indication of the approach of the disease, a diagnostic sign of it, diphtheria came to be regarded as a local affection and the throat the objective point of the physician's attack; the membrane must be removed, though he knew but little of its true character except it was poisonous. At the onset of this disease, or, indeed, any throat difficulty, the first service of the family physician was to cauterize the throat with a strong solution of nitrate of silver, or the solid stick even. It would have been as unfortunate for the physician to appear without his caustic as for the physician of earlier times to appear without his lancet, calomel or jalap. The treatment did not stop with the cauterization of the diphtheritic throat; preventive measures must be instituted. Johnnie and Joe, Susie and Annie must in turn submit to the process of cauterization and submit to the same solution and the same old swab just used upon the diphtheritic patient, and, upon the score of economy, sometimes the self-same old swab was preserved till next application. We smile at the acts of our predecessors, although they did the best they could; but, somehow, I fancy that twenty-five years hence the boys of the profession will smile over our oddities and inconsistencies as we smile today over those of our predecessors.

Concerning diphtheria there are still many mooted points, although a few seem to have been definitely settled, and among that number we may mention the following: First, that it is a highly contagious disease. Second, that it has a period of incubation. Third, that it runs a comparatively definite course, partaking of the nature of a self-limited disease. Fourth, that it is pro-

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

duced by a peculiar specific germ, the favorite seat of which, when fully developed, is in the fauces.

The question, and a most vital one, still remains debatable—namely, Is diphtheria a local or systematic affection? Are the systematic disturbances dependent entirely upon the presence of diphtheritic membrane, toxalbumen, or the presence of the specific germs within the blood or body? This question is vital, for correct therapeutics depend upon a correct answer.

Our first intimation or positive sign of the disease is the appearance of the membrane usually attached to the tonsils, palate or uvula, greyish-white in color, tough and adherent and apparently beneath the epithelium, through which it breaks a little later. The pseudo-membrane is found to be composed of necrosed epithelium, disintegrated leucocytes, pus, fibrin and bacilli, the latter scattered freely between the meshes. In conjunction with this membrane there is a swelling of the cervical glands and of the sub-maxillary glands, the latter being an important factor in differential diagnosis; the swelling of these glands appears as early as the membrane, and it is probable that their enlargement appears prior to membrane formation.

It is doubtless true that diphtheria consists of the deposition and development of a specific germ which may be deposited, and usually is, within the fauces; but it is my belief, a belief founded upon observation, that the specific germ is not developed at the point of deposition, that it is not congenial soil for its propagation, that it is developed within the system producing general malaise, which is usually well marked before the appearance of the membrane. From the study I have made I am fully convinced that the Imago, as found in the membrane, is developed from an ovum and that this ovum must be within the system during its development. If this be true, then, as well think of excising the diphtheritic membrane as resorting to local treatment to cure the disease, as to excise, by cautery, or otherwise, a primary syphilitic chancre and call this procedure a cure. Syphilis we know and acknowledge becomes constitutional at once from the time of contact, though many days do elapse before the presence of the disease is detected in other ways.

A further proof of the systemic character of diphtheria is shown from the fact that death occurs almost invariably from systemic poisoning and not from asphyxia, as is seen in membranous croup; what is apparently asphyxia usually consists of collapse of lung

tissue, or paralysis of muscles, of respiration or circulation. That paralysis is oftentimes a sequela of diphtheria is not a theory but a fact, a paralysis that ofttimes remains after all other signs and symptoms of the disease have subsided. Pure mechanical obstruction of the respiratory tract by pseudo-membrane I have never seen, and I question if this condition should ever be taken into account as a *mode* of death, and this leads directly to the question, Is tracheotomy ever justifiable in diphtheria, and if so, why and when ? You who approve it may answer.

The stomach as well as other abdominal organs suffer, and especially the former. Here we have inactivity of the peptonic glands and diminution of hydrochloric acid and sodium chlorides, due to the poisonous exudate coming into contact with the sensative membrane, producing partial inactivity of it. As a factor in producing this inactivity the general systemic poisoning must also be taken into account.

The urinary organs, either directly or indirectly, soon become involved ; the urine is diminished in quantity, high colored and usually contains albumen, the presence of which means excessive uric acid and urea formations and their imperfect elimination ; this abnormal condition increases with the severity of the disease and decreases as the disease progresses toward a favorable issue. In this regard there is a similarity between diphtheria and most of the acute febrile diseases ; another indication of its systemic character.

Many more characteristics of this disease might be given, but it is needless, as you all are doubtless familiar with them.

It has been stated that diphtheria is apparently a self-limited disease, which is, as a rule, true ; as it progresses the different phases which it presents are as constant as those of pneumonia or typhoid fever. Death may shorten this period, but if lengthened is due to infection at other foci at a later period than the primary lesion, if such the point of infection may be called. As a rule, the active stage of the disease extends over a period of ten days, after which comes a period of decline of some ten days more duration, when convalescence is fully established.

That diphtheria is a self-limited disease may be inferred by analogy. All of the infectious diseases run a more or less regular course ; all are systemic affections having more or less marked local manifestations which sometimes predominate over the systemic ones.

All infectious diseases have their origin in the deposition and development within the body of germs peculiar to their kind, and these, too, have a favorite seat from which development proceeds, depending upon their character. The bacillus diphtheria chooses the fauces and adjacent parts; the pneumococcus the lung tissue; the bacillus typhosus Peyer's patches, and so on. These points of attack become later in each disease the nidus, the home of the fully developed germ. All life, as seen through a material organization, has a formative stage, markedly different from its perfect being as seen in its complete existence; so by analogy we say bacilli follow the same law; time is required for their full development and this time may represent the so-called period of incubation. It is during the development of the bacilli that we say the disease is progressive and when the end of their development is reached, that the disease has turned its course, that convalescence is established, although the danger line not passed. Nature now seeks to eliminate the poison, whether that poison be inanimate bacilli or toxalbumen, a substance produced by the growth of bacilli, and as toxalbumen, when present, renders germ life impossible.

The union of two or more substances, chemically or biologically, form by that union a substance unlike any of its component parts, and, in a large degree, such substance by its presence renders inoperative chemical or biological action. This seems to be a law of Nature, not in exact accordance with the law of *Similia Similibus Curantur*.

Diphtheria cannot be a local affection, for the lesion is not commensurate with the systemic disturbances from its onset to its close. That diphtheritic germs are found in the fauces and elsewhere, with no systemic disturbances, is a fact, but not proof that the possessor is ill with the disease; if diphtheria ever be local, it is now, just prior to the entrance of the germ through the membrane, prior to any and all systemic disturbances. The assertion that diphtheria can exist actively prior to systemic disturbances is open to ridicule and justly so; as well say the whole human family is continually ill because of constant contact with bacteria. In any infectious disease it is not till some germ or germs permeate the delicate tissues, forcing a way into the circulation, can germ disease be said to exist. Nature is practically unchangeable, and because of that fact, science is possible. The worm-like larva is no less a butterfly than the beautiful *imago*, but to develop it

requires peculiar and well-known conditions. So is it with the bacillus diphtheria; when it finds its peculiar element, then and not till then will it develop and come forth as a perfect being, finding its final home in the diphtheritic membrane, of which it forms a part. Not till the germ begins its development in the developing media of the body, do the systemic disturbances begin, disturbances that mark the beginning and progress of the disease. A leopard cannot change his spots, neither can a germ in its process of development be local today and systemic tomorrow, for a transition from one condition to another requires a change in food, a change in growth, a change in its entire being. Nature does not work that way. She is systematic and consistent. She has, therefore, made rational treatment possible, though it is still in the future. That treatment may be and the indications are that it will consist of the introduction into the system of antitoxine, tox-albumen, or educated bacilli, the object of which will be to eliminate, destroy or render inert that peculiar element which the germs require for their growth, thus rendering development impossible. May the day speedily come when the disease shall be treated, whatever that treatment be, upon a rational, scientific basis and not by one dependent upon "signs and symptoms."

A word now in regard to treatment: not the treatment, but my treatment, for specific medication is as yet unknown. This is twofold: first, prophylactic; second, medicinal. Of the former, but little more can be said than complete isolation of the infected from the apparently non-infected, and for the latter a good nutritious diet, fresh air and sunshine, but otherwise a severe letting alone. Of the medicinal treatment, local applications form but a minor part. I seldom make an external application of poultices or similar appliances, for, if the theory be correct, what good can come from their use? They must interfere with respiration and thus indirectly affect circulation, which is already weak. Steam has been used after the line of demarkation became prominent between the pseudo- and true membrane, to hasten exfoliation and expulsion; the impregnation of steam with medicinal agents I regard as almost worthless. As a gargle and mouth wash, permanganate of potassium, two to four grains to eight ounces of water, is used frequently. Of the full germicidal properties of this solution I have some doubt, but I get a moral effect; it is a shield from unjust criticism. The family and friends imagine something

is being done for the throat, for to them it is a true throat affection in spite of all the physician may say to the contrary.

Internally, bichloride of mercury is given, not alone for its germicidal effects, but to coagulate the albumen and thus carry off in a mechanical way some bacilli that may have been swallowed. Another benefit to be derived from the use of this drug is the increase of red corpuscles in the blood, over the production of which it exerts a favorable influence. Strychnine is given in varying doses, to counteract the tendency to paralysis, watching closely its physiological and toxicological effects.

Pilocarpin is prescribed in sufficient quantity to produce a moderate amount of perspiration, and at the same time the quantity of urine is also increased, thus favoring the proper elimination of uric acid and other urates. For this purpose, I regard this drug as par-excellence, since it produces the elimination of uric acid and urea by the skin as well as by the urinary organs. Since there is a loss of hydrochloric acid, this also is supplied together with some of the sodium compounds, sodium chloride being preferred.

Since diphtheritic poison interferes markedly with digestion, some of the so-called digestants are used, my preference now being for papoid, not to dissolve the membrane, for I regard this a questionable procedure, but to keep in solution the food products in the alimentary canal, which appears a necessity. Iron is seldom used, except during the period of convalescence, and then sparingly.

This line of treatment has given me good results—results that compare favorably with other practitioners—a line that I shall doubtless follow till something more is known of that dreaded disease, diphtheria.

DISCUSSION.

Dr. J. O. Roe: Mr. Chairman, I do not think anyone would question the fact of diphtheria being a constitutional disease, but the point was brought forward first by Œrtel that it originated locally, that it had a local origin, that it was a local affection and that the constitutional affection was purely secondary to the local affection. Now, I do not think the doctor's paper will controvert that fact, that the systemic affection does not spread from a local process; that the inoculation usually takes place in the throat, where is provided an inviting field, and from that the general affection takes place. The treatment, which the doctor, of course, did not have time to touch upon, will carry out this point. No one

would confine himself to the treatment of local process. He would simply destroy this local process and prevent further infection and then present his main treatment to the treatment of the systemic trouble.

Dr. N. S. JACOBSON: I do not wish, Mr. Chairman, to occupy too much time of the society, but I have a word to say upon this subject, and that is briefly this: If there is any one thing established today; if bacteriology has accomplished any one thing today, it is an assurance of the fact that diphtheria is always primarily local in its origin. It has shown that the germs are found in the throat. It has shown that they are not found at all in the blood. It has shown that the disease is started in the throat and that is absolutely primarily its origin. In the two minutes that are allowed, of course, this question cannot be entered into, but if anyone desires positive proof of this, let him read the report of Welch as it was presented to the Hygienic Congress at Buda Pesth recently, and as presented in the last number of the *American Journal of Medical Sciences.* The other question which has been hinted at, Is tracheotomy ever beneficial or justifiable? I cannot go into my record as far as tracheotomy is concerned, but I will briefly say that in the present year I have operated eight times for diphtheritic laryngitis where there was foreign infection, where the cases never were isolated and where the cases sprang up; in one instance seven cases surrounded the one I operated upon. In one of those cases we had to feed the patient by the rectum. Four of those patients got well.

Dr. F. J. THORNBURY: I think the only treatment now is the anti-toxine treatment, and this fact has been established in practice and by animal experimentation.

Dr. YOUNG: Mr. President, I wish only to state in regard to my paper, that the real object was to draw out the idea that the bacilli are developed in the blood from spores, and may compose the so-called toxines which are present, but the composition of which is unknown; and that these semi-developed germs nevertheless exist, though they have not been identified by the microscope.

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DR. E. W. KELLOGG strongly advises frequent *large* doses of turpentine in diphtheria, which should be persisted in as long as there is any chance whatever. He reports twenty-six cases, all involving the larynx, of which fourteen cases, or fifty-four per cent., recovered.—*Med. Mirror.*

# Report of Societies.

## THE EIGHTH PERIODICAL INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, HELD AT EDINBURGH, AUGUST 7-11, 1894.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

### HISTORICAL INTRODUCTION.

Ophthalmology was the earliest to become distinctively a special department of medicine, being at first degraded by charlatanism and quackery, but afterwards elevated to its proper position by scientific study and practice; was first to put forth its separate treatises; was first to organize special hospitals; was first to publish special periodical literature; was first to occupy special chairs in medical schools, and was first to establish an international congress.

In 1838, Florent Cunier, of Brussels, Belgium, founded the *Annales d'Oculistique*, the first exclusively ophthalmological journal ever published, and through it an interest was awakened and an influence extended which did more than all else combined to secure for ophthalmology scientific treatment and professional recognition and respect. The maintenance of this journal was an arduous task, but it was successful. In 1853, it was transferred to other hands, in consequence of the early death, in April of that year, of its learned founder and editor. Those who then assumed management were Dr. Louis S. Fallot, of Brussels; Dr. J. Bosch, of Gand; Dr. F. Hairion, of Louvaine; Dr. J. VanRoosbroeck, of Gand, and Dr. E. Warlomont, of Brussels, the latter being made the editor-in-chief. It was this editorial committee, which, following the example of the lamented Cunier in the consecration of its efforts to the scientific advancement of ophthalmology, conceived the idea of calling together from all parts of the civilized world as many as possible who were exclusively, or otherwise closely, identified with this branch of medicine. Without doubt, Dr. Warlomont was the moving spirit in this project, but the whole editorial staff constituted itself a committee of organization, with Dr. Fallot, president, and Dr. Warlomont, secretary-general. In a note to the readers of the *Annales d'Oculistique*, January, 1857, the editorial committee made the following statement:

The study of ophthalmology continues to extend; some men of most eminent merit are consecrating to it their time and labors. That which

we have formerly predicted, and that which we have invoked with all our heart, is accomplished today. Besides, ophthalmology has progressed, and it has become specialized. Look at Germany, at England, where it is cultivated with so much ardor and success, and see physicians of greatest renown devoting themselves exclusively to it. We know, and have many times repeated, that from a scientific point of view, ophthalmology cannot be isolated from other branches of the healing art; it receives from them and furnishes to them by a just reciprocity most important information. It is not so in regard to the technical part; here it has its proper domain, its means of diagnosis, its operative manipulations, its instruments and apparatus, and it is not too much for any one life to explore, to search into and to make productive.

It is under the domination of this thought that the editorial committee of these *Annales* has conceived the project of calling together, at Brussels, in the month of September next, in a special congress, men who cultivate ophthalmology, and those who, without specially cultivating it, are interested in it and understand its importance.

This committee sent out its first circular, dated January 15, 1857. Pursuant to this call and announcement, ophthalmologists and physicians interested in ophthalmology to the number of 250 convened at Brussels, September 13-16, 1857, and the "Periodic International Ophthalmological Congress" was inaugurated.

To detail the program that was carried out, to describe the enthusiasm that was aroused in the discussions of the assigned questions, and to note the interest manifested in the ophthalmoscope which had so recently (1851) been discovered by Helmholtz and had so wonderfully opened up new fields of exploration, would be foreign to the purposes of this communication. But something of the *personnel* of this first international ophthalmological congress, and, indeed, so far as I can learn, the first international congress of medicine or any of its branches, may be *apropos*.

While Dr. E. Warlomont was undoubtedly the "father" of the congress, Dr. Fallot was made its president. Dr. Warlomont was elected secretary-general, and as in its preliminary organization, so here he was the most energetic and the most efficient of any in its management. Dr. Fallot was an older man, not exclusively an ophthalmologist, but a most distinguished physician of Belgium, and was worthy of the highest honors of the congress, particularly in view of his coöperation in its organization. Warlomont was a young man, and by his ability and zeal was eminently fitted to perform the duties incumbent upon this office. The success of any

society, association or congress depends largely upon its secretary. If he has the proper ability and energy, it will be a success always. Warlomont was the right man here, and this congress was a success, even under much opposition and reproach, and it greatly helped to win for ophthalmology, as a specialty, an honorable recognition that has continued to increase to the present time. Thirty countries, or governments, were represented. Among the members, from our own country, were Dr. S. D. Gross, Dr. Isaac Hays, Dr. Lazarus and Dr. Little, all of Philadelphia; from Great Britain, among others, were Bowman, Dixon, Streatfield, Critchett, Mackenzie and Walton; from Austria, Arlt, Ed. Jæger, Stellwag; from Denmark, Hansen (now Hansen-Grut), Thüne; from Hanover, Max Langenbeck, the two Stromeyers; from Holland, Bauduin, Donders; from Italy, Quaglino, Gioppi, Quadri; from France, Cusco, Desmarres, Guélpin, Sichel, Stœber; from Germany, Juengken, Langenbeck, Von Graefe, etc., etc. These distinguished men and many more honored this first congress by their presence, and enriched its transactions by their communications. But where are they today? Scarcely any live to tell the story of that time. Most of them have gone to their reward, and "their works do follow them," and in many instances these have immortalized them. But they have transmitted to us the heritage of this organization which it is ours to enjoy, and which should be preserved immaculate and continued true to its original purpose.

Eight sessions of the International Ophthalmological Congress have now been held, as follows: the first at Brussels, September 13–16, 1857, under the presidency of Dr. L. S. Fallot, of Brussels; the second at Paris, September 30 and October 1–3, 1862, Dr. J. F. Vleminckx, of Brussels, president, and Dr. Jules Sichel, of Paris, perpetual honorary president; the third at Paris, August 12–14, 1867, Dr. Albrecht von Graefe, of Berlin, president; the fourth at London, August 1–3, 1872, Dr. F. C. Donders, of Utrecht, president; the fifth at New York, September 12–14, 1876, Dr. E. Williams, of Cincinnati, president; the sixth at Milan, September 1–4, 1880, Dr. Quaglino, of Milan, president; the seventh at Heidelberg, August 8–11, 1888, Dr. F. C. Donders, of Utrecht, president, for the second time; the eighth at Edinburgh, August 7–11, 1894, Dr. D. Argyll-Robertson, president. Each of these sessions has borne rich fruits, each has had a distinguished membership, each has been promotive of scientific research, and each has fostered

that spirit of fraternity and good-will which extends far beyond town, city or country, and becomes truly international.

### THE EIGHTH CONGRESS.

The eighth session of the congress, so recently held in Edinburgh, in whose proceedings it was my happy privilege to join, was common with the others in having a membership which included many of the most eminent ophthalmologists of the world and in presenting a program which included papers of the highest scientific rank. To be sure, none of the former presidents were there; indeed, they all live only in their works and the memories of those who knew them. Very many others who were active in other sessions and contributed so generously and acceptably had either been laid to rest or were stricken with disease and were giving their lives back to the Great Source of all life, as in the case of the revered and immortal Helmholtz, or were called elsewhere by various attractions and duties, and they were not there. They were missed. Professor Zehender, of Munich, was the only one present who was a member of the first congress, in 1857. The themes and questions which so aroused the enthusiasm, and so stimulated the thought and discussion of other meetings, were not introduced at this time. But there were new faces to take the place of old ones, and the subjects here discussed were as alive as those that made up the old programs, and its work was entered into with that zeal, and was possessed of that high scientific character which marked former meetings. While, therefore, the older generation of ophthalmologists is passing away, the newer is taking its place, and thus the vitality of the congress is preserved and its purposes continued.

Among the members of former congresses we saw the venerable Prof. Carlo Reymond, of Turin, and Dr. Zehender, of Munich. Then there were also Chibret, of Clermont-Ferrand; Deutschmann, of Hamburg; Holtenhoff, of Geneva; Hansen-Grut, of Copenhagen; Hirschberg, of Berlin; Th. Leber, of Heidelberg; Meyer, Landolt and Bull, of Paris; Priestly Smith, of Birmingham; Pfluger, of Berne; Sattler, of Leipzig; Schmidt-Rimpler, of Gottingen; Snellen, of Utrecht; Power, McHardy and A. Critchett, of London; Swanzy, of Dublin; and from our own country, Noyes, Knapp and Roosa, of New York, and Green, of St. Louis. To this list of men, so well known throughout the world, I might add others, but I mention these to show how truly the old is brought

forward to the new membership, the one to be assimilated with the other to preserve the organic individuality of the past.

The membership of the Edinburg congress compared in numbers most favorably with that of other sessions. The number of listed members was 290, but the actual attendance, as shown by the registry on the afternoon of the last day, was about 170. The number listed from America, including Canada, was 69, of whom 32 from the United States and 5 from Canada were in actual attendance.

This session was held in Edinburgh, pursuant to an invitation extended by Dr. Argyll-Robertson, of that city, at the Heidelberg meeting, in 1880. The committee of organization was formed principally of a few Edinburgh physicians, with Dr. Argyll-Robertson, president, and Dr. George A. Berry general-secretary. This committee received the coöperation of the medical profession and many of the citizens of Edinburgh in perfecting plans for receiving and entertaining the gentlemen who might attend the congress, together with the ladies who might accompany them.

The renowned University of Edinburgh, with its medical school made equally famous by the long array of distinguished men who have honored it from its inception, in 1724, to the present time, opened wide its doors and tendered its memorable halls to the occupancy of the congress.

Fortified by such local support, the committee proceeded, early in 1894, to issue the call for the meeting, and invited contributions from men in all parts of the civilized world. From 9 to 1 each day, August 7–11, the congress was to devote itself to scientific work, and the balance of each day was to be given to entertainments of various kinds. In the latter, the committee commanded numerous resources and offered a "bill of fare" such as could not be provided by any other city but Edinburgh, possessed as it is of unexcelled beauties; interesting as it is in the annals of history; rich as it is in the numerous monuments, standing or crumbling, marking the struggles, the defeats, the despairs, the victories and the securities of a hardy and courageous people; distinguished as as it is as a great seat of learning and as a center of medical thought and culture, made lustrous by the Monros, Cullen, Gregory, Syme, Goodsir, Bennett, Christison, Simpson, Gairdner and many others; and surrounded as it is by a great number of places and objects that poets and historians have made famous by song and pen. With attractions like these, who could decline the invitation to "come?"

(*To be continued.*)

# Clinical Report.

## AN INTERESTING CASE OF HYSTERIA WITH A TEMPERATURE OF 105.8°.

By JAMES STAFFORD, M. D.,
Gynecologist to the West Side German Clinic ; New York Clinic of Specialties, etc.

Last March a case was referred to me by Dr. C. P. Biggs of this city, and as it was of unusual interest, I take the liberty of reporting it, for your consideration. A young girl of 19 years, single, whose early life, up to within a year previous, had been spent in a " convent school," was the patient.

She had always been in perfect health up to about five months preceding this illness, when she had acceded to the solicitations of a young man, under the promise of marriage, and became ènceinte. The young man refused to marry her, and to avoid disgrace, a premature delivery had been brought on, after which the girl had been well, except for the fact that she was depressed by the young man's refusal of marriage, and the consideration of the idea that she was no longer virtuous.

When I first saw the case, she had been having hysterical seizures each night, often accompanied by vomiting, crying, moaning, etc., so that the doctor had been called nearly every night for the past week. At one or two times he had found her temperature 102.5° F., by mouth. She has been kept in bed upon a light diet of beef juice and milk, and during the attacks, morph. sulph., grain one-fourth, had been administered by needle. This, together with moral suasion, composed about all the treatment used.

I was introduced to the patient in the afternoon, and, the next night, was hurriedly called to find her in contortions, of a purely hysterical character. I gave her a hypodermic of morph. sulph., grain one-fourth, and half a drachm each of fluid extract viburnum prunifolium, and fluid extract valerian every two hours when awake. I called the next day, finding the patient more easy, and requested that she sit up in a chair during the afternoon, having previously made a careful chest examination, and having found the heart and lungs in normal condition. The same treatment was continued. The following day she was sitting up and looking well, but, to my surprise, as I placed my hand upon her wrist, it was extremely warm, and the pulse was beating 125 per minute. Her temperature was 104.5°. I ordered her to bed and gave

acetanalid, grains 5, every two hours with cold spongings and tincture aconite M. 2, every hour for three doses, and in four hours the temperature and pulse were normal. The next day she was improved, and I advised that she take a drive through the park, which was done. The following day, when I called, she was sitting in the parlor, and said she felt well and was desirous of attending the theatre that evening, if I would permit her to do so. To my surprise, upon taking the temperature by mouth, I found it 105.8°, and the pulse 140 per minute. I took the patient in my arms, carried her to the bed, and again examined her carefully, but could find no other cause for the temperature. I then took her to the bath-tub, laid her down in it and turned on lukewarm water, gradually cooling the water to about 80°, leaving her in the tub about ten minutes, and until the temperature had lowered about two degrees and she had begun to tremble with the cold and to beg me to let her out of the tub.

The next day she was feeling fine, and the temperature was normal. I told her she might go to the theatre, driving or anywhere else, but she must take a bath as cold as she could tolerate each morning. The attacks never returned, and for the past three months she has been perfectly well. The chief point of interest about the case I regard as the exaggerated heat production. Many cases of hysteria are seen by every physician, but one with such a temperature I regard as uncommon, and when such a high temperature is found, it is often apt to startle the physician and cause him to be somewhat skeptical about his abilities as a diagnostician.

142 West 70th Street.

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# Progress in Medical Science.

## SURGERY.

### DOUBLE FEMORAL HERNIOTOMY IN A WOMAN 64 YEARS OF AGE; PRIMARY UNION OF BOTH WOUNDS.

Dr. S. E. Milliken, New York, (*La Revista Med. Quirurg,*) reports a case of double femoral herniotomy at the advanced age of 64 years. Deep sutures of kangaroo tendon were used to close the crural canal, while catgut was employed for bringing together the skin wounds. The dressings were changed for the first time on the

tenth day, when union was found complete, and the superficial sutures had been absorbed. The highest elevation of temperature was 101° F., which occurred within forty-eight hours, and was attributed to the shock of the operation.

CONCLUSIONS.

1. Age is no contra-indication to the employment of the radical cure of hernia.

2. Asepsis and antisepsis should be carefully observed.

3. Even in cases of strangulation, the radical cure should be attempted, if the condition of the patient warrants the delay.

4. When the truss becomes a source of annoyance, or if the hernia is difficult to retain, the operation should be performed without delay, and before strangulation occurs.

36 WEST 59TH STREET.

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## Therapeutic Notes.

DR. SENECA D. POWELL, professor of clinical surgery at the New York Post-Graduate Medical School and Hospital, at a recent clinic, in speaking of the treatment of inherited syphilis, said:

The Maltine Manufacturing Company have recently added another valuable preparation to their list, maltine with coca wine. It is especially indicated in cases where the general condition is below par and a tonic without too much alcohol. I have also been using it in old people who are not especially ill, but are feeble and debilitated in the afternoon. It seems to pick them up and is not followed by the usual reaction of alcoholic stimulants. You will find a fruitful field for its use in children of low vitality, who are poor starch digestors, and in convalescence from wasting diseases and exhaustive operations.

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BOILED WATER FOR SCHOOL CHILDREN.—The prefects in the several French departments have issued orders to the various schools, requiring that all drinking water supplied to the pupils shall be boiled, and that the cleansing of the floors, desks, etc., of the school rooms be no longer done with dry dusters and brooms, but with moist cloths, to prevent spread of dust. Once a week a thorough cleansing is to be carried out with an antiseptic.—*Memphis Medical Monthly.*

(From The *American Journal of Obstetrics*, November, 1894.)

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. DECEMBER, 1894. No. 5.

## THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

THE twentieth annual meeting of the Mississippi Valley Medical Association, held at Hot Springs, Ark., November 20–23, 1894, marks an era in the medical society gatherings for the year. As the closing meeting for 1894, it furnishes the opportunity for us to make some general comments on the subject of such organizations, as well as some specific remarks in relation to this particular association.

Let us begin by calling attention to the fact that the organization of this body varies somewhat from the common. In the first place, an essential feature consists in the fact that nothing can be discussed during the sessions excepting science as it relates to the practice of medicine. All questions pertaining to the business conduct of the association are disposed of in committee apart from the regular sessions of the society; furthermore, in its general conduct, business rules prevail and the foundation of all its work is that it considers scientific questions by day and devotes the hours of evening to social entertainments.

It is evident from the very nature of such a plan of organization, that strong men from all sections of the country are attracted to its meetings; and in them, too, great advantages are obtained, not only to the members themselves, but the places where it meets feel its beneficial effects long after the gavel falls at the closing of the session.

For a great medical body like this to have had the audacity to appoint its annual meeting at Hot Springs, challenges the admiration and respect of the profession of the United States. Especially is this the case when we reflect that its meeting there was more

than a success : it was a triumph. Several reasons conspired to make this meeting a marked one in the history of the association. Primarily, the president, Dr. Xenophon C. Scott, of Cleveland, proved an executive officer worthy of his trust. His well-known talent for the conducting of association meetings had been often brought into requisition before, but never was it tested more severely, nor did it ever prove more able to stand the strain than on this occasion. His annual address was a paper that merits the careful attention of physicians throughout the land.

Again, in the selection of Dr. Thomas E. Holland, of Hot Springs, as chairman of the committee of arrangements, the trust was committed to an able executive officer. To have organized successfully the medical profession of that resort in a way that brought into harmonious relation all legitimate resident practitioners and united the cordial support of the citizens of that American Carlsbad, gives evidence that no mistake was made in such selection. It was no easy task to bring into harmonious relationship the divergent interests and opinions of the people of that locality in regard to the feasibility of holding the meeting there, and to Dr. Holland's indefatigable energy is due the fact that so many members of the profession from all parts of the country were found in attendance.

A third feature, and one perhaps of the greatest moment in this relation, was the exceptional railway facilities that the association enjoyed. This is the first time in the history of medical meetings in this country when railways have given an all-around one-half fare to the members attending. In the present financial stringency it would have been impossible, perhaps, to have brought together a great number of medical men at such a remote point, had the ordinary rules of a fare of one and one-third rate prevailed. Furthermore, in running an official train of Pullman sleepers from St. Louis to Hot Springs and return, giving ample and comfortable accommodations to all who chose to avail themselves of its privileges, was a happy combination of comfort and pleasure. For these very exceptional railway privileges the association is indebted to the courtesy of Col. Harry C. Townsend, general passenger agent of the Missouri Pacific railway, and of his able coadjutor and lieutenant, Col. Charles E. Ware, both of whom gave their personal attention to the organization of the train and safely conducted it from start to finish. Both of these gentlemen remained with the association until its end and proved themselves

not only splendid railway officials, but staunch personal friends of almost every man in attendance.

The social features of this meeting deserve brief comment. The official train reached Little Rock at 8 o'clock Monday morning, November 19th, and all were entertained at breakfast by Col. Townsend, after which carriages were provided by the physicians of Little Rock, in which a visit was made to all the points of interest. A reception and luncheon at the Capital hotel concluded the ceremonies at Little Rock.

Boarding the official train 2.45, Hot Springs was reached at 5 P. M., where carriages again met and conveyed its 220 travelers to the several hotels in that city. The visiting ladies were entertained by a local committee, headed by Mrs. T. E. Holland, who provided street car rides, carriage drives, donkey excursions and other delightful ways of visiting the points of interest. Besides this, receptions at the houses of prominent citizens, including Col. A. A. and Mrs. Woodhull, of the United States Army, a grand ball at the Arlington on Wednesday evening and a magnificent banquet at the Park Hotel on Thursday. These, together with numerous other and lesser ways of enjoyment, were provided with a lavish hospitality that seemed to know no end. The hotels, too, did everything possible to make their guests at home. Mrs. Lyman T. Hay, wife of the manager of the Arlington, was a hostess of which Hot Springs may well be proud.

The scientific character of the meeting demands brief notice. The papers read will soon be published in the journals and an abstract of the proceedings will also be printed with promptitude. Hence, our readers will be able to form a judgment upon this for themselves, but we venture to assert that in the main it will compare favorably with that of any other general medical meeting that has been held during the present year.

This association cannot be considered in any sense as a rival to the American Medical Association, but it is, nevertheless, a formidable contestant for scientific honors with that body, and, in our opinion, it is fast attaining a degree of excellence not only in quantity, but quality that will challenge the older and larger organization.

The officers for the ensuing year are: President, Dr. W. N. Wishard, of Indianapolis; vice-presidents, Dr. Thomas E. Holland, of Hot Springs, and Dr. Charles B. Parker, of Cleveland; secre-

tary, Dr. F. C. Woodburn, of Indianapolis; treasurer, Dr. George J. Cook, Indianapolis.

The next place of meeting is Detroit, Mich., where a royal welcome is sure to be extended.

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## STATE EXAMINATIONS FOR LICENSE, NEW YORK.

From advance sheets of the report of the regents of the University of the State of New York for 1894, we are permitted to extract the following statistics, that we think will prove of interest to our readers:

| | Examinations. | | Candidates. | | Examined. | | Accepted. | | Rejected. | | Per cent. Accepted. | | Per cent. Rejected. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1893 | 1894. | 1893 | 1894. | 1893. | 1894. | 1893. | 1894. | 1893. | 1894. | 1893. | 1894. | 1893. | 1894. |
| State Board.... | 8 | 6 | 296 | 427 | 267 | 390 | 247 | 311 | 20 | 79 | 92.5 | 79.7 | 7.4 | 20.2 |
| Homeo. Board. | 8 | 6 | 23 | 56 | 21 | 51 | 19 | 44 | 2 | 7 | 90 4 | 86.2 | 9.5 | 13.7 |
| Eclectic Board. | 8 | 6 | 7 | 6 | 7 | 4 | 5 | 2 | 2 | 2 | 71.4 | 50. | 28.5 | 50. |
| Total.. ..... | 8 | 6 | 326 | 489 | 295 | 445 *a* | 271 | 357 *a* | 24 | 88 *a* | | | | |

*a.* These totals from September 1, 1893, to July 31, 1894, include two candidates who paid three times and are, therefore, counted three times, and seven candidates who paid twice and are, therefore. counted twice; two candidates whose papers were not examined because of attempted fraud, and one eclectic candidate who has not yet completed his examinations.

The number of the last license issued in 1894 was 687.

### LAW AND MEDICAL STUDENT EXAMINATIONS, AUGUST 1, 1893—AUGUST 1, 1894.

| | |
|---|---|
| Examinations | 6 |
| Answer papers written | 13,968 |
| Answer papers accepted | 9,330 |
| Answer papers rejected | 4,638 |
| Per cent. of papers accepted | 66.8 |
| Per cent. of papers rejected | 33.2 |
| Law student certificates issued | 475 |
| Law student certificates issued on examination | 424 |
| Law student certificates issued, equivalents | 51 |
| Medical student certificates issued | 947 |
| Medical student certificates issued on examination | 395 |
| Medical student certificates issued, equivalents | 552 |
| Per cent. of law student certificates issued on equivalents | 10.7 |

| | |
|---|---|
| Per cent. of medical student certificates issued on equivalents.. | 58.2 |
| Academy equivalent certificates issued..... | 259 |
| Academy equivalent certificates issued on examination ..... | 24 |
| Academy equivalent certificates issued on equivalents..... | 235 |
| Per cent. Academy equivalent certificates issued on equivalents. | 90.7 |

## TOPICS OF THE MONTH.

One of the acquisitions which Dr. A. A. Hubbell, of this city, was enabled to make to his ophthalmological library while he was abroad the past Summer, was a "treatise" on diseases of the eye, which is believed to be the first ever published in the English language. It was printed in 1622 and bears the following title:

"A Treatise of One Hundred and Thirteene Diseases of the Eyes and Eye-Liddes. The second time published, with some profitable additions of certaine Principles and experiments, by Richard Banister, Mr. in Chirurgery, Oculist, and Practioner in Physicke.

"God hath created medicines of the earth, and he that is wise, will not contemne them.

"Imprinted at London by Felix Kyngston for Thomas Man, dwelling in Paternoster-row, at the signe of the Talbot. 1622."

This is a duodecimo volume of over 450 pages, and appears to be an effort to counteract, as much as possible, the abuses and charlatanism so prevalent in those days, both by censuring such practices and pointing out the errors of the uneducated and pretentious, and by supplying to the public a work from which might be obtained an intelligent understanding of the anatomy, physiology and diseases of the eye according to the best knowledge of that time.

Banister does not claim that the "treatise" is entirely original with himself, but does not divulge the name of the author whose work he reproduces. In an introductory "to the reader" he expresses his attitude toward the subject and his object in making the publication as follows: "Now to conclude, since the eye is so delicate a member, and of such excellent use, as that without it, we lose most of the best delights and comforts of life; and by it, wee read the Booke of our Redemption, the Roule of times antiquities, the Volumes of the Sages, & the whole Library of the worlds creatures; therefore I could wish, that while it is well,

every man were provident enough to perceive it, and when it is ill, cunning enough to cure it. And to shew that I seeke more to bring good to others, than gaine to my selfe; I have here published the labors of a worthy Writer in this kinde, who describeth an hundred and thirteene severall diseases happening to the eyes and eielids, with their particular causes, symptoms, signes, and cures; the worke was dedicated to my former kinsman, and being long since out of print, is not now to be bought for money; and this booke have I sent abroade againe, that those who delight to labor in this art, may runne the readier way to the better successe. I have also added something of mine own, that through my experience they may find at first, what I was learning long."

The book is a very curious and interesting one.

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The restriction placed by the state upon the right to practise medicine within its borders is done for the benefit of the people. The sooner this fact is recognized the better it will be for all concerned. The present generation of medical men can derive very little benefit from these wise laws, though it is probable that later generations may do so.

But the public can derive no benefit from the most wholesome laws unless they are properly and adequately enforced. This requires zeal and energy on the part of presecuting officers, and we hope that the young and brilliant district attorney-elect, who has also received the appointment *ad interim* from the governor, will keep a sharp lookout for offenders against our medical practice act.

Physicians, too, have a duty in the premises. They should report all supposed infractions of the law, and thus become a substantial aid to the law officers.

Commenting on this subject, as related to the Maryland practice act, the *Maryland Medical Journal* says:

> Now laws may stand on the statute books and not be enforced, on account of the ignorance on the part of the public and the apathy of the profession. Ignorance of a law is no excuse, but apathy is a greater wrong, and yet many a person sees laws broken and sinned against but is too careless or apathetic to raise objections.
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> . . . . . .
>
> It is the duty of every physician in the state to constitute himself a detective and report to the secretary of the State Board of Medical Examiners all persons whom he knows or even suspects to be practising medicine without a right. Physicians have, for a long time, asked

for an efficient state medical law, and now one has been passed, it is the duty of respectable physicians to uphold it and do their parts.

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A BRONZE statue of the late Dr. J. Marion Sims was erected in Bryant park, in the City of New York, on Saturday, October 20, 1894. A description of the statue appeared in the June issue of the JOURNAL, 1894, page 689.

This first tribute in sculpture to a physician in this country had its inspiration in the columns of the New York *Medical Record*. To its editor, Dr. Shrady, is due the securing of a fund sufficient to accomplish the purpose aimed at. At the unveiling ceremonies addresses were made by Drs. George F. Shrady and Paul F. Mundé, after which the concealing veil was drawn by a child, a grandson of Sims, and the statue was formally presented to and accepted by the City of New York.

Dr. Shrady's address was an eloquent tribute to the famous gynecologist whose figure is thus perpetuated in bronze, but whose fame is more enduring than brass or the Egyptian pyramids. Dr. Shrady gave a brief biographical sketch of Sims, and Dr. Mundé told of his struggles in establishing gynecology on a firm foundation and of his organization of the New York Woman's Hospital, and especially how he was selected for the peculiar distinction of having a statue erected to his memory.

The occasion and the participants were all well chosen, and the graceful deed reflects credit on the American profession of medicine.

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## Personal.

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DR. ARTHUR W. HURD, first assistant physician in the Buffalo State Hospital, has been promoted to be superintendent, *vice* Dr. J. B. Andrews, deceased. It is understood that the board of managers gave to Dr. Hurd its unanimous vote, which has elevated him to this honorable and responsible position.

This, it seems to us, was the only logical course for the managers to pursue, for Dr. Hurd had shown his equipment for the place by many years' service in a subordinate capacity, and had demonstrated his ability to direct its affairs by more than a year's service as acting superintendent. He was also at the head of the

list under the Civil Service rules and is medically and every other way fitted for the place. The JOURNAL has much pleasure in extending its congratulations to Dr. Hurd.

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DR. HERBERT U. WILLIAMS, of Buffalo, who has lately returned from a prolonged visit in Europe, where he has been engaged in study, announces his office at 24 High street. He will give special attention to making autopsies and to microscopical diagnosis, the examination of sputum, urine and blood. Telephone, Tupper 330.

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DR. FRANK W. ROSS, of Elmira, N. Y., has begun a series of lectures on Electro-therapeutics in the Medical Department of Niagara University. A lecture will be given at the college every first and third Tuesdays of December, January and February.

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DR. JOSEPH M. MATHEWS, of Louisville, editor of *Mathews's Medical Quarterly*, and the well-known author and teacher, has been appointed president of the Kentucky State Board of Health.

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DR. CHARLES GILBERT CHADDOCK, of St. Louis, has been appointed associate editor of the *Medical Mirror*.

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## Obituary.

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DR. WILLIAM GOODELL, of Philadelphia, died in that city on October 27, 1894, in the sixty-fifth year of his age. He had been in failing health for some time, but his end was finally sudden.

Dr. Goodell was one of the well-known American physicians, and of late years has occupied prominence as a gynecologist. For twenty-two years he had charge of the Preston Retreat, during which time he was actively engaged in teaching and writing. He had remarkable literary gifts and his writings are often quoted. He was a painstaking and methodical worker and will be greatly missed, especially among the group of gynecologists of his period, few of whom are left.

# Book Reviews.

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By various authors. Edited by Prince A. Morrow, A. M., M. D., Clinical Professor of Genito-Urinary Diseases; formerly Lecturer on Dermatology in the University of the City of New York; Surgeon to the Charity Hospital, etc. With illustrations. In three large 8vo volumes. Volume III. Dermatology. Pp. xiv.—976. New York: D. Appleton & Co. 1893. Sold only by subscription.

Modern methods of investigation have served to differentiate and enlarge the catalogue of diseases in almost all departments of medicine. This is especially true in dermatology, as may be observed by an examination of this treatise, wherein are recorded some forty or more diseases that a few years ago were unknown or were blended with other affections of the skin.

This work is divided into two parts. In Part I., called general, are treated the anatomy and physiology of the skin by Louis Heitzmann; semeiology, by Prince A. Morrow; general etiology, by William A. Hardaway, and classification by Prince A. Morrow.

In Part II., classified as special, the various diseases of the skin are treated upon. These special diseases are divided into classes, and in the first class come inflammations. Here we find the exanthemata and every physician should familiarize himself with this portion of the subject, since general practitioners of medicine are always called upon to treat scarlet fever, measles, small-pox and the like.

In this class also are found erythemata, erysipelas, furunculus, herpes, pemphigus, the dermatites, etc., which are interestingly handled by various authors.

The second class includes hemorrhages and in which purpura simplex and purpura hemorrhagica are briefly considered.

The third class embraces the hypertrophies, and in which, besides many other diseases, are considered elephantiasis, acromegaly and myxedema. The fourth class includes the atrophies, leucoderma, albinism and vitiligo.

New growths are grouped in the fifth class, where interesting and profitable studies may be made of the several tumors of the skin. Perhaps one of the most interesting chapters here is the one on leprosy, prepared by the editor, largely from personal researches. Much interest attaches to the history of Father Damien's own case, which is here given, together with a photograph of this self-sacrificing priest, taken a month before his death.

The sixth class embraces the neuroses in which pruritus is included, while in class seven diseases of the appendages of the skin are included; sweat glands, sebaceous glands, hair follicles and nails.

Finally, in class eight are grouped parasitic diseases, both vegetable and animal. The work is handsomely printed and well

illustrated. It is the most important contribution to the literature of dermatology that has been made, and is a guide for the general practitioner and specialist.

This is the third and final volume in the system of genito-urinary diseases, syphilology and dermatology edited by Dr. Morrow, and published by D. Appleton & Co.

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The Johns Hopkins Hospital Reports. Volume IV., Nos. 1, 2, 3. Report on Typhoid Fever. Quarto, pp. 167. Baltimore: The Johns Hopkins Press. 1894.

The management of typhoid fever has undergone considerable change within the last few years. Formerly it was supposed that the administration of drugs was a potent factor in the cure of this disease. Now it is generally believed by the most experienced clinicians that, as a rule, the fewer drugs administered the better.

This change of front does not belittle the offices of the physician in his ministrations to typhoid patients. On the contrary, it magnifies them and makes them more exalted. The mere administration of drugs to combat symptoms may be reduced to a simple question of mechanics that any tyro may acquire in a few weeks; whereas, to safely conduct a typhoid case through the varying stages of the disease, under the present plan of nursing, diet and baths, requires an exercise of judgment which can only be obtained by experience, and is akin to that surgical judgment which is apart from mere operative technique, but tells the surgeon when and where to operate and also when to withhold the knife.

Osler informs us in this work that about 75 per cent. of typhoid patients recover under any and all forms of treatment, even without good nursing and regulated diet; but, he adds, that by judicious care, careful feeding and by the withholding of drugs of uncertain value, fifteen additional patients in each hundred are saved. Add to this, according to statistics, the 3 or 4 per cent. that are saved by hydrotherapy and we have a mortality reduced to 6 or 7 per cent.

The essentials, then, in the successful management of typhoid fever are good nursing, carefully regulated diet, fresh air, the cold bath and a minimum of medicines. Not everyone, to be sure, can endure the immersion bath, but the cold bath is applicable to most cases in some of its modifications.

When the profession of medicine comes to believe with Osler, that drugs, as a rule, are not indicated in the management of typhoid fever; that no known drug shortens by a day the course of the fever; that no method of specific treatment or of antisepsis of the bowel can be relied upon, and especially, that the so-called antipyretics of the coal-tar series are dangerous and often cause death through the production of cardiac failure, the management

of this disease will have advanced to an intelligent stage in which the mortality will not be greater than 3 per cent.

Nothing but good can come of a universal reading of this work.

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A System of Legal Medicine. By Allan McLane Hamilton, M. D., Consulting Physician to the Insane Asylums of New York City, etc., etc., and Lawrence Godkin, Esq., of the New York Bar. With twenty-seven collaborators. Illustrated. Volume I. Large 8vo, pp. 657. Price per volume, cloth, $5.50; full sheep, $6.50. New York: E. B. Treat, 5 Cooper Union. 1894.

The list of contributions to this work includes the names of many distinguished writers and authorities upon medical jurisprudence in this country.

For many years the contributions to this subject have been sparse, though Beck's treatise, now nearly obsolete, was, when issued, one of the greatest in any country and became a text-book in all the schools.

Hamilton has wisely planned his book, and it deals with questions that possess lively interest at present. It may be asserted that there is a revival of interest in medical jurisprudence among American physicians. They are nowadays so frequently called into the courts as medical experts, even in the smaller towns, that it behooves each and every one to qualify himself for the ordeal. There is no more pitiable spectacle than the discomfiture of a medical witness at the hands of a keen and unscrupulous lawyer.

Hamilton's work begins at the right end of the lever. After a short introduction by Lawrence Godkin, medico-legal inspections and post-mortem examinations are taken up by Dr. A. S. Briston. This is a chapter to be studied by everybody who is called in cases of sudden death.

The next section, and one of absorbing interest, treats of death in its medico-legal aspects, and is written by Dr. Francis A. Harris. These two sections should be studied together.

In this volume the medical jurisprudence of life insurance is dealt with *in extenso* by Dr. Brandreth Symonds, and an interesting chapter occurs on the legal relations of physicians and surgeons to their patients and to one another, written by William A. Purrington, the distinguished counsel of the Medical Society of the County of New York.

Many other interesting subjects are dealt with in this volume, but we cannot here mention them in detail.

The mechanical execution of the work is beyond criticism, and many illustrations add to its interest and contribute to its perfection.

A second volume, soon to be issued, will complete the work which is sold only by subscription.

ANNUAL REPORT OF THE STATE BOARD OF CHARITIES FOR THE YEAR 1893. Albany: James B. Lyon, State Printer. 1894.

This volume gives an interesting exhibit of the work of this important branch of the state government for the year 1893. Besides the official report of the board there are several excellent papers relating to charity economics. In one of these relating to child-saving work, by Hon. William P. Letchworth, we learn that the first institution in the state for the care of foundlings was established in Buffalo.

A considerable portion of the report relates to a consideration of the institutions conducting charitable and reform work in the eighth judicial district, also prepared by Mr. Letchworth. There are fifty-four institutions herein described, thirty-seven of which are classified under the head of miscellaneous and seventeen as medical charities. Thirty of the miscellaneous institutions are located in Buffalo, as are likewise fifteen of the medical charities.

This is one of the most useful reports published by the board, and deserves a careful examination by all philanthropists and others interested in charity work.

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TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Volume XIX. For the year 1894. Small 8vo, pp. xliii.—363. Philadelphia: Wm. J. Dornan, Printer. 1894.

The annual volume of this society always serves to enrich the literature of gynecic medicine. The present book is replete with excellent papers and good discussions. There are ninety-one active members of the society, fifty-seven of whom were present at the nineteenth annual meeting. This speaks well for the discipline of the organization and the interest taken in it by the Fellows.

Dr. J. C. Reeve, of Dayton, O., contributes an admirably written memorial of Dr. Alexander Dunlap, which deserves to be read by every American physician. It is accompanied by a fine photographic likeness of this veteran ovariotomist, which does ample justice to his striking features, and which brings out his strong character in ample manner.

Dr. Matthew D. Mann, of Buffalo, was elected president for the ensuing year, and the next place of meeting is Baltimore, on the fourth Tuesday of May, 1895.

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TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Ninth session, held at Washington, D. C., May 29, 30, 31, and June 1, 1894. Philadelphia: Printed for the Association. 1894.

The annual transactions of this association are always welcome. The annual address of the president, Dr. Reginal H. Fitz, of Boston, was entitled, The Rise and Fall of the Licensed Physician in Massachusetts, 1781—1860. In its concluding portion he says:

"Ten years of increasing tolerance destroyed seventy years of enthusiastic effort, devoted labor, tactful management and wise counsel in the public interest. The state revoked the control of medical practice and the people had been the sufferers. The history of Massachusetts in this respect is the history of the country. She was one of the last of the states to lay down the control and she will be one of the last to resume it."

The papers in this volume have been published in the magazines and have already become a part of the literature of medicine.

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TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Ninety-sixth annual session, held at Baltimore, Md., April, 1894, also semi-annual session, held at Annapolis, Md., November, 1893.

This volume grows thinner year by year. We speak, however, on this occasion with reference to its size, for though there are within its covers but two scientific papers, they furnish ample opportunity for study and reflection. The first is the president's address, by Dr. George H. Rohé, on the Extinction of Tuberculosis. This is a carefully written, scholarly paper and presents some of the most modern thought on the subject. The annual address by Dr. James T. Whittaker, of Cincinnati, O., has for its title, Predisposition to Phthisis. Some of the generally accepted opinions with reference to the supposed heredity of phthisis will here be found controverted.

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## BOOKS RECEIVED.

The Proceedings of the Fourth Annual Meeting of the Association of Military Surgeons of the United States. Held at Washington, D. C., on May 1, 2 and 3, 1894. St. Louis: Buxton & Skinner Stationery Co. 1894.

Transactions of the Medical Society of the State of Pennsylvania, at its Forty-fourth Annual Session, held at Philadelphia, 1894. Volume XXV. Published by the society. Philadelphia: The Edwards & Docker Co., Printers. 1894.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene and the Diseases of Women and Children, by various writers. Edited by Richard Quain, Bart., M. D., London, LL. D. Ed., F. R. S., President of the General Council of Medical Education; Member of the Senate of the University of London; Hon. M. D. Trinity College, Dublin; Hon. M. D. Royal University of Ireland; Fellow, late Vice-President, and Senior Censor of the Royal College of Physicians; Hon. Fellow of the Royal College of Physicians of Ireland; Physician Extraordinary to Her Majesty the Queen; Consulting Physician to the Hospital for Diseases of the Chest, Brompton, and to the Seamen's Hospital, Greenwich. Assisted by Frederick Thomas Robarts, M. D., London, B. Sc., and J. Mitchell Bruce, M. A., Aber-

deen, M. D., London, with an American Appendix, by Samuel Treat Armstrong, M. D., Ph. D., Visiting Physician to the Harlem, Willard Parker and Riverside Hospitals, New York, etc. New edition, revised throughout and enlarged. Imperial 8vo, in two volumes, pp. 2566. Illustrated. New York: D. Appleton & Company. 1894.

Bureau of Education. Contributions to American Educational History. Edited by Herbert B. Adams. No. 14. The History of Education in Connecticut, by Bernard C. Stenier. A. M No. 15. The History of Education in Delaware, by Lyman P. Powell, A. B. No. 16. Higher Education in Tennessee, by Lucius Salisbury Merriam, Ph. D. No. 17. Higher Education in Iowa, by Leonard F. Parker. Washington: Government Printing Office. 1893.

The Johns Hopkins Hospital Reports. Report in Surgery II., Volume IV. No. 6. The results of operations for the cure of cancer of the breast performed at the Johns Hopkins Hospital from June, 1889, to January, 1894. By William S. Halsted, M. D., Professor of Surgery Johns Hopkins University; Surgeon-in-chief to the Johns Hopkins Hospital. Baltimore: The Johns Hopkins Press. 1894.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by Judson Daland, M. D. (Univ. of Penna.), Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the University Hospital; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume III Fourth series. 1894. Royal 8vo, pp. xii.—363. Philadelphia: J. B. Lippincott Co. 1894.

Diagnosis, Differential Diagnosis and Treatment of Diseases of the Eye. By A. E. Adams, M. D., Instructor in Diseases of the Eye in the Post-Graduate Medical College; Assistant Surgeon to Manhattan Eye and Ear Hospital, New York; Ophthalmic Surgeon to St. Luke's Hospital, etc., etc. Duodecimo, pp. 94. New York: G. P. Putnam's Sons, 27 West Twenty-third street. 1894.

A Synopsis of the Practice of Medicine. For Practitioners and Students. By William Blair Stewart, A. M., M. D., Lecturer on Therapeutics; late Instructor on Practice of Medicine in the Medico-Chirurgical College of Philadelphia; Demonstrator in the Philadelphia School of Anatomy, etc. One large 8vo volume, about 434 pages, cloth, $2.75. New York: E. B. Treat, 5 Cooper Union. 1894.

The Pocket Anatomist. By C. Henri Leonard, A. M., M. D., Professor of Gynecology, Detroit College of Medicine. Leather, 300 pages, 193 illustrations, post-paid $1.00. Detroit, Mich.: The Illustrated Medical Journal Co., Publishers. 1894.

A Manual of the Practice of Medicine, prepared especially for Students. By A. A. Stevens, A. M., M. D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania ; Demonstrator of Pathology in the Woman's College, Philadelphia ; Physician to St. Mary's Hospital, etc., etc. Third edition, revised. Illustrated. Small 8vo, pp. xviii.—501. Price, $2.50. Philadelphia : W. B. Saunders, 925 Walnut street. 1894.

A Manual of Modern Surgery, General and Operative. By John Chalmers Da Costa, M. D., Demonstrator of Surgery, Jefferson Medical College, Philadelphia ; Chief Assistant Surgeon Jefferson Medical College, etc. Saunders' New Aid Series. Small 8vo, pp. 809, with 188 illustrations in the text and thirteen full-page plates in colors and tints. Price, $2.50 net. Philadelphia : W. B. Saunders, 925 Walnut street. 1894.

Essentials of Diseases of the Skin, including the Syphilodermata. Arranged in the form of Questions and Answers prepared especially for Students of Medicine. By Henry W. Stelwagon, M. D., Ph. D., Clinical Professor of Dermatology in the Jefferson Medical College ; Physician to the Department of Skin Diseases, Howard Hospital, etc., etc. Saunders' Question Compends No 11. Third edition, revised and enlarged, with seventy-one letter-press cuts and fifteen half-tone illustrations. Philadelphia : W. B. Saunders, 925 Walnut street. 1894.

Home Treatment for Catarrhs and Colds. A handy guide for the Prevention, Care and Treatment of Catarrhal Troubles, Cold in the Head, Sore Throat, Hay Fever, Hoarseness, Ear Affections, etc. Adapted for use in the household and for vocalists, clergymen, lawyers, actors, lecturers, etc. By Leonard A. Dessar, M. D., Visiting Laryngologist to St. Mark's Hospital and to Mount Sinai Hospital Dispensary, etc. Illustrated. New York : Home Series Publishing Co., P. O. Box 1406. 1894.

Landmarks in Gynecology. By Byron Robinson, B. S., M. D., Chicago, Illinois, Professor of Gynecology in the Chicago Post-Graduate School ; Gynecologist to the Woman's Hospital, the Charity Hospital and the Post-Graduate Hospital. The Physicians' Leisure Library Series. In two volumes. Price, cloth, 50 cents ; paper, 25 cents. Detroit, Mich. : George S. Davis. 1894.

Transactions of the Michigan State Medical Society for the year 1894. Volume XVIII. Detroit : Published by the Society. 1894.

Practical Urinalysis and Urinary Diagnosis : A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, M. D., Queen's University ; Fellow of the Royal College of Physicians and Surgeons, Kingston ; Professor of Uronology and Urinary Diagnosis at the Chicago Post-Graduate Medical School ; Author of Bright's Disease and Allied Affections of the Kidneys ; also of Diabetes : Its Causes, Symptoms and Treatment. With numerous illustrations, including photo-engravings and colored plates. In one crown 8vo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia : The F. A. Davis Co., 1914 and 1916 Cherry street. 1894.

Medical Jurisprudence, Forensic Medicine and Toxicology. By R. A. Witthaus, A. M., M. D., Professor of Chemistry, Physics and Hygiene, in the University of the City of New York, etc., etc., and

Tracy C. Becker, A. B., LL. B., Counselor-at-Law and Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo. In four volumes. Volume II. Large 8vo, 751 pages, illustrated with wood-cuts and three plates, two of them in colors. Price, in muslin, $5.00 ; in brown sheep and in law style, $6.00 per volume. Sold by subscription only. New York : William Wood & Co. 1894.

Text-book of Hygiene : A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By George H. Rohé, M. D., Professor of Therapeutics, Hygiene and Mental Diseases, in the College of Physicians and Surgeons, Baltimore ; Superintendent of the Maryland Hospital for the Insane ; Member of the American Public Health Association ; Foreign Associate of the Société Française d'Hygiène, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Royal 8vo, 553 pages. Cloth, $3.00 net. Philadelphia : The F. A. Davis Co., 1914 and 1916 Cherry street. 1894.

A Clinical Manual of Diseases of the Eye, including a Sketch of its Anatomy. By D. B. St. John Roosa, M. D., LL. D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School and Hospital ; Surgeon to the Manhattan Eye and Ear Hospital ; formerly Professor of Diseases of the Eye in the University of the City of New York and in the University of Vermont ; Consulting Surgeon to the Brooklyn Eye and Ear Hospital ; President of the New York Academy of Medicine ; Honorary Member of the Medico-Chirurgical Society of Edinburgh ; Honorary Fellow of the Academy of Medicine of Havana, Cuba, etc., etc. Octavo, 650 pages, 178 engravings in the text, nearly all original, two full-page chromo-lithographic plates, and a full-page black plate. Bound in extra muslin at $5.50, and in sheep at $6.50. New York : William Wood & Co. 1894.

Essentials of Chemistry and Toxicology. For the Use of Students in Medicine. Twelfth edition. (Wood's Pocket Manuals.) By R. A. Witthaus, A. M., M. D., Professor of Medical Chemistry and Toxicology in the University of Vermont ; Member of the Chemical Societies of Paris and Berlin, etc. 32mo, 314 pages, muslin, red edge, price $1.00. New York : William Wood & Co. 1894.

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## Miscellany.

Civil Service Examinations for Physicians in the State Hospitals.—An open competitive examination of applicants for the positions of first assistant and junior assistant physicians in the state hospital service will be held at the rooms of the State Civil Service Commission, Albany, on Thursday, December 20, 1894, commencing at 10 o'clock, A. M.

Applicants for the position of first assistant physician must be not less than twenty-five years of age, and must have had at least

three years' experience in a hospital for the insane. Applicants for the position of junior assistant physician must be not less than twenty-one years of age and have had at least one year's actual experience on the medical staff of a public general hospital or have served at least one continuous year as medical interne in a state hospital for the insane. All applicants must be residents of the State of New York for the year last past and graduates of a legally incorporated medical college.

For application blanks, address the New York Civil Service Commission, Albany, N. Y.

THOMAS CARMODY, *Chief Examiner.*

Albany, N. Y., November 22, 1894.

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Visiting List.—Lindsay and Blakiston's Physicians' Visiting List for 1895 has made its appearance. This is the forty-fourth year of its publication, which fact sufficiently tests its popularity. It is published in four forms; one is called the regular edition, arranged for from twenty-five to 100 patients, according to size, and ranging from $1 to $3 in price. Besides this, an interleaved edition, a perpetual edition and a monthly edition are published, covering the various wants of physicians. There is no doubt that for completeness, compactness and simplicity of arrangement it is exceled by none in the market. It is published by P. Blakiston, Son & Co., 1012 Walnut street, Philadelphia, and is sold by all booksellers and druggists.

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The publishers of *The Youth's Companion* are offering special prizes for stories by physicians, as follows:

Six prizes will be given for the best stories founded on incidents in a physician's life, as follows: For the best story based upon experiences in a physician's life, $100; for the second, similar story, in merit, $100; for the third in merit, $100; for the fourth in merit, $50; for the fifth in merit, $50; for the sixth in merit, $50. The offers of "special prizes" to physicians include also a very much larger offer of prizes for short original stories made to authors generally. For this reason, a story that secures a special prize in the offer to physicians, if superior to stories offered in the more general competition, will be entitled to both prizes.

Physicians wishing for particulars respecting the character of these stories and the conditions under which prizes will be given should apply by letter, being sure to put M. D. after their names, to Perry, Mason & Co., publishers *Youth's Companion*, Boston, Mass.

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The *Medical Mirror* for October devotes considerable space to the publication of an abstract of the proceedings, in part, of the American Association of Obstetricians and Gynecologists at its Toronto meeting, September 19, 20 and 21, 1894. It furnishes very interesting reading and we presume the abstract will be continued in a future issue of this admirable magazine.

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Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga prize, being the income for one year of the bequest of the late Señor Alvarenga and amounting to about $180, will be made on July 14, 1895, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published and must be received by the secretary of the college on or before May 1, 1895.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award.

The Alvarenga prize for 1894 has been awarded to Dr. G. E. de Schweinitz, of Philadelphia, for his essay entitled Toxic Amblyopias. CHARLES W. DULLES, *Secretary.*

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Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

# Buffalo Medical and Surgical Journal

Vol. XXXIV. JANUARY, 1895. No. 6.

## Original Communications.

### SURGERY OF THE ACCESSORY SINUSES.[1]

By GEO. F. COTT, M. D.,
Instructor in Laryngology at the University Dispensary.

The surgery of the accessory sinuses has largely occupied the attention lately of the American and British laryngological associations. In discussing the subject many opinions were advanced regarding the symptomatology and treatment. Since the subject is of great importance to the practitioner who has very little time to follow up all diseases treated mainly by specialists, but which are necessary for him to recognize, I concluded to formulate the principal symptoms, whereby, as near as is possible, to differentiate between the affections of the different sinuses and to give the treatment which has yielded the best results. Cases of sinusitis, primary or secondary, are often and easily mistaken for ozena, which is reasonable and excusable when it occurs as an acute disease associated with, or following an acute affection of the nasal chambers; when, however, it is chronic, in which condition the physician usually meets with it, a proper diagnosis of sinusitis can be made if certain symptoms and tests are observed. It must be admitted, however, that a positive diagnosis as to the particular sinus affected is often difficult to determine. To make it as easy as possible etiology and pathology will not be treated of in this paper, leaving the mind of the busy practitioner unhampered and still make the desired impression, which is, to recognize the affection whenever the opportunity presents itself.

The accessory sinuses are: Frontal, anterior and posterior ethmoidal and sphenoidal cells, and the antra of Highmore or maxillary sinuses. The posterior ethmoid and sphenoid cells open into the superior meati by one or more openings, the frontal sinus,

1. Read before the Buffalo Academy of Medicine, November 6, 1894, and Roswell Park Medical Club.

the anterior ethmoid cells and the antra of Highmore into the middle meati, the nasal or lachrymal duct, open into the inferior meati.

### DISEASES OF FRONTAL SINUS.

When the patient comes under observation he will complain of matter discharging from the nose ; if that is pent up he will have frontal headache, the severity of which depends upon the amount of pressure exerted by the retained fluid. If relief is not obtained the roof of the orbit will be crowded downward and displacement of the eyeball is produced with diplopia and amaurosis ; or, pressure may be posteriorly, in which case pressure upon the brain will cause symptoms referable to that organ. If the pus escapes into the nose the above symptoms will be absent excepting the headache, which is more or less constant. Pus discharges continually and is in appearance bright yellow. An examination at this stage will show pus covering the inferior turbinate ; to ascertain its source it should be wiped off with spray and swab, then the parts cocainized, which causes the tissue to contract when a little pus will be seen to emerge from the infundibular opening in the middle meatus. The above symptoms taken together will point to trouble in the frontal sinus.

### TREATMENT.

In acute catarrhal affections of the frontal sinus, ordinary treatment applied to the nasal cavities causes the symptoms rapidly to disappear, providing the opening in the middle meatus is patulous. When chronic, exit for the pus must be established, which can be done by removing the hypertrophied tissue over the middle turbinated bone ; but, if this is not sufficient, the anterior extremity of the middle turbinated bone may also be removed and the nasal cavity kept as nearly aseptic as possible. If further interference becomes necessary, an opening can be made where the pressure seems to be greatest, over the inner angle of the eye. The opening should be large enough to explore the sinus with the little finger, and removing granulations, carious bone, polypi, etc., with the sharp spoon, passing a probe through the infundibulum into the middle meatus, to be sure it is open, then wash it out and pack with antiseptic gauze ; dressing to be repeated daily for several weeks. In the meantime, the nasal cavity is to be kept scrupulously clean.

### SPHENOIDAL SINUS.

In disease of the sphenoidal sinus, pus of a bright yellow color will usually be noticed, dropping down the pharynx by reason of

the opening situated immediately above and a little posterior to the middle turbinated bone; deep-seated pain referable to the side affected, sometimes very severe, involving all parts of distribution of the fifth nerve. Owing to the close proximity of the sinus to the optic foramin, pressure upon the optic nerve causes impairment of vision or total blindness, which may come on suddenly. If the condition is not relieved, the disease affects the bony structure, and the character of the pus changes often to the caseous variety. If pus cannot escape, it is liable, by pressure, to cause ptosis, strabismus and exophthalmus. When necrosis occurs there is danger of extension of the inflammation to the brain, or, as has occurred in one case, extending from the sphenoidal to the cavernous sinus, causing destruction of bone and hemorrhage from mouth and nose, and finally death.

### TREATMENT.

Any obstructing substance must be removed, such as polypi or hypertrophies, and if any nasal inflammation be present, it must be reduced by the usual mild and soothing methods. A probe can then be passed in search of denuded or carious bone, which can be scraped out with a sharp spoon or a trephine, propelled by the electric motor or surgical engine, always using the posterior rhinoscopic mirror, as the operation is extremely dangerous by easily penetrating the roof and entering the brain. After opening the sinus careful search must be made for dead bone or caseous material, cleaned out with the spoon or curette and washed with antiseptic lotions.

### ETHMOIDAL DISEASE.

Acute disease of these cells, caused by extension from the nasal cavity, usually subsides when the latter is relieved. It may, however, become chronic, and through closure of their openings retain the secretion which degenerates and then causes the following symptoms: pain referred to the root of the nose and back of the eye; if pus escapes the fetor is not so marked to the patient, as the sense of smell is often impaired by the discharge preventing the odoriferous particles from coming in contact with the olfactory filaments. The lamella in this region being very thin, are easily broken down and appear in the pus as small gritty particles. When the cells are distended the bone gives way on the side of least resistance, which is toward the orbit, crowding the eyeball forward and outward and impairing vision. A swelling is then observed at the inner angle of the orbit, when crepitation may be

produced by pressure, supposedly due to emphysema. I met a case some years ago, in which the eye was removed and a large amount of pus escaped. The patient died, however, from other causes, which prevented me from gathering further data.

### TREATMENT.

The nasal cavities should be thoroughly cleansed, then the anterior part of the middle turbinated bone removed and the opening brought into view. This is all that is necessary, as the anterior cells often extend into the turbinated bone, and pus freely escapes. A sharp spoon may be passed into the cavity and it scraped out. The nose may be slit up, to gain easier access, which otherwise is extremely difficult. The cavity is then washed out and the nose packed with wool or gauze. This, as well as sphenoidal disease, is an extremely grave affection and requires considerable dexterity in operating.

### DISEASE OF THE ANTRUM.

In disease of the antrum of Highmore, or maxillary sinus, the diagnosis is not so difficult, especially when uncomplicated. If, however, the affection is overlooked there is usually no danger to the patient, unless necrosis takes place.

The symptoms present, especially when the osteum maxillaræ is occluded, are: Pain in the affected region, with a sense of fullness and weight below the orbit; if obstruction lasts very long, pain will be extreme, extending over the whole side of the face. Mastication may become difficult, the teeth appearing longer than normal. After the pus has been evacuated these symptoms disappear and a more or less intermittent discharge takes place. When the disease is chronic, in which condition it is usually found, because it is often secondary, there will be very little pain, some swelling may be noticed over the nasal process of the superior maxillary bone. The patient complains of pus running down the throat at night, but is discharged or blown out of the nose during the daytime, but not immediately after rising in the morning. In disease of the other sinuses, position will make no difference.

A modern method of diagnosis is by transillumination. By placing an electric lamp in the mouth and closing the lips over it, having the room dark, then turning on the current, one side will be illuminated and the other containing pus will remain dark. When the two cavities are affected both will remain dark. This is only possible, however, when the antrum is pretty well filled with opaque fluid or other substance. If a cyst be present illumination

will be complete, but other symptoms, such as bulging, etc., will be noticed, which may be and has been mistaken for sarcoma (votalini). In case of a small amount of pus the above method will avail nothing. Therefore Davidsohn has made the positive statement that transillumination of the *eye* is the only certain sign of abscess of the antrum. Illumination of the eye is always a sign of a healthy antrum; a dark eye, however, is not a positive sign of disease in this cavity. Illumination may be prevented by undue narrowing of the antral cavity, asymmetry of the hard palate or an excessively arched palate, preventing the rays of light from passing through the antral cavity. Some stress might be laid upon absence of luminous impression on one side by the patient himself. With a lamp in the mouth of a healthy subject whose eyes are closed, a luminous impression is produced upon the lower part of the retina. When empyema is present this impression is not observed. A very simple method giving most positive knowledge is exploratory puncture in the lower meatus and injecting dil. $H_2O_2$ the ozonizing process speedily becomes manifest in the natural opening in the middle meatus.

Differential diagnosis is often very difficult, but if you will bear in mind that frontal (suppurative) disease is rare, and sphenoidal disease extremely grave, you will have safer ground to work on. I believe ethmoidal and sphenoidal affections occur more often than is observed. Many cases of death from meningitis might be explained if the history regarding nasal symptoms and pain before the meningeal attack occurred were ascertained. To differentiate between pyosinusitis and other affections of the nasal cavities is not so difficult as it may seem. The sources of pus discharged from the nose are: purulent rhinitis in children, syphilis, rhinolith or other foreign body, neoplasm, nasal diphtheria and the several diseased sinuses. Neoplasm, sinusitis, syphilis and foreign bodies usually cause unilateral discharge, but the accompanying symptoms of each make the differential diagnosis easy. Pus from the sinuses is uniformly bright yellow, unless necrosis supervene. When pent up for any length of time it has the odor of sulphuretted hydrogen. Very little odor is observed if the flow is unobstructed. Although recognition of sinusitis is an easy matter it is sometimes very difficult to locate the source of pus. By studying the locations of the several openings in the nasal cavities we find pus discharging from the frontal sinus, anterior ethmoid cells and the antrum into the middle meatus and out of

the nostrils, while that of the posterior ethmoid and sphenoid cells passes down the pharynx since these latter openings are situated in the superior meatus just above the posterior extremity of the middle turbinated body. Discharge from the antrum is usually intermittent, more abundant in the morning, the flow being favored by reclining the head, while the upright position favors the flow from the other cavities, the discharge being continuous. Pain is unilateral and referred to the affected sinus. Exophthalmus is the rule in ethmoid disease and may be present in sphenoidal, rare with antral unless the abscess ruptures into the orbit. Bulging of the orbital plate does occasionally occur in frontal disease, but is the rule in ethmoidal, differing in kind however, being forced downward and outward, the eyeball not protruding so much. Sudden blindness occurs, probably, only in disease of the sphenoidal sinuses, by pressing upon the optic nerve as it passes through the optic foramen. Ptosis is produced by pressure on the fifth nerve in its passage through the sphenoidal fissure, likewise strabismus. The frequency with which the different sinuses become affected is also of diagnostic value ; that of the antrum is more common, ethmoid and sphenoidal are less frequent, and the rarest of all is frontal disease.

### TREATMENT OF ANTRUM.

I will not burden you with a description of all the methods of treatment now in vogue, but will mention those which will appeal to you as most rational. Puncturing through the inferior meatus with knife or drill may be readily accomplished and the cavity washed out daily. The patient cannot manipulate the syringe very well, however, because of the pain produced in its introduction, and cocainizing becomes necessary. A better method is opening through the alveolus, especially where there is a tooth missing, using the electric motor, surgical engine, or a hand drill of three-sixteenths-inch diameter. A metal tube may then be inserted and the patient be taught the use of a syringe for daily flushings. As antral disease is often due to carious teeth, this method of operating seems most rational. If upon exploration the cavity is found denuded, it becomes necessary to pack it with gauze ; for this purpose an opening should be made with drill and chisel back of the canine fossa, drilling backward, upward and outward, making an opening large enough to explore the cavity with the little finger for dead bone, foreign body, such as a supernumerous tooth, bony par-

titions, etc., then flushed with diluted $H_2O_2$ followed by a weak sublimate solution or boracic water, then packed with gauze daily. When no denuded bone can be detected, a counter-opening may be made into the inferior meatus, behind the opening into this meatus of the lachrymal or nasal duct, and the patient taught to flush the cavity two or three times daily by first rinsing the mouth thoroughly, then taking a large draught of 5 per cent. boroglyceride, diluted $H_2O_2$ or boracic solution, and forcing it under the lip into the antrum, when it will emerge from the counter-opening in the inferior meatus. This method, it is claimed, will cure the trouble in one or two months. The writer has given a fair trial to all these operations and to numerous drugs to facilitate the process of healing. Iodoform in powder and solution of 2 per cent. alboline, sub-iodide of bismuth and aristol in the same way, sublimate solution 1 to 1,000 and 1 to 2,000, saturated solution of boracic acid, 2 per cent. solution of potassium permanganate, fifteen vol. solution of $H_2O_2$ full strength and diluted, also pyrozone, which is a 25 per cent. solution of $H_2O_2$ and is probably the best pus finder we have. I now confine the flushings to diluted $HO_2$ and 5 per cent. boroglyceride, the object being cleanliness and to prevent the accumulation of pus. The duration of the disease is from one month to several years. The particular kind of operation selected is entirely governed by conditions present.

In conclusion I will briefly cite two extreme cases:

A woman, aged 30, referred by Dr. Eugene E. Storck, complained of pus running down her throat at night and blowing out a large quantity during the day-time, usually soiling ten handkerchiefs a day, and some swelling and pain in left cheek. She was very much emaciated. After preliminary treatment an opening was made over the first bicuspid tooth and the cavity explored. It was found entirely denuded. After using the sharp spoon for possible granulations, the cavity was flushed and packed. After several months of this treatment the opening was allowed to close, as there was no more pus escaping. This patient suffered over a year before coming under treatment, which extended over a period of six months. There is still more discharge from that nostril than from the other, but its character is not that of pus, according to the patient's statement, nor is there any more discharge down the pharynx at night.

The second case was that of a man aged 40, recently referred by Dr. J. C. Thompson, in which there was a great discharge of pus of four weeks' standing. The first molar was missing, an opening was made through that socket with a drill and the antrum washed out

daily. No other treatment was used. The patient recovered in three weeks.

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## THE HOME TREATMENT OF HAY FEVER.[1]

By A. L. HALL, M. D., Fair Haven, N. Y.

In the present state of our knowledge it may be safely asserted that hay fever is a respiratory neurosis whose essential dependence is a neurasthenic constitution. The other etiological factors—an irritable state of the respiratory mucosa and the various kinds of stimulus—occupy a secondary place and without the presence of the neurotic element are incapable of producing the aggregation of symptoms known as hay fever.

Accepting the theory of the preëminence of the nervous element as a causative factor of the affection obviously, then, the first indication for intelligent treatment must include such hygienic and therapeutic measures as are calculated to improve and preserve the stability of the nervous system. Among the chief hygienic conditions to be observed are the following: an orderly manner of living, including appropriate diet and well-ventilated apartments, the avoidance of physical and mental overstrain—depressing influences—and exposure to dust, pollen and other external excitants. Among the therapeutical agents which promote reconstructive metamorphosis and conserve nervous energy, arsenic, nux vomica and cinchona, taken in the order named, are of the highest value, and will be found the most serviceable remedies for the removal of the neurotic condition which underlies hay fever. The potentiality of these drugs are materially enhanced by combining them. The truth of this assertion may be well determined

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

by carefully noting the effects derived from their use according to the following formula :

℞ Lig. pot. arsenitis.
Ext. nucis vomicæ fl.
Ext. cinchona fl. (detannated) ..... āā vi. drs.
Alcoholis ..... iii ozs.
Syrp. aurantii ..... q. s. ad. xvi. ozs.

M. Sig.—One to two teaspoonfuls, taken three times daily, with or after meals.

To be eminently successful, the use of this mixture should be commenced at least six weeks before the time for the annual recurrence of the disease and should be faithfully maintained for the ensuing three months, or longer if demanded. This treatment, aided by proper hygienic conditions, will gradually lessen the severity of the affection, and in a comparatively short time bring the patient into a comfortable state of existence. Especially noteworthy will be the relief obtained from the naso-pharyngeal and bronchial dyspnea which is such an annoying symptom of the disease. Furthermore, there are good reasons for believing that from three to five years' consecutive treatment, covering the three months' period named, will, in many cases, secure permanent immunity from subsequent attacks of the affection. In support of these claims, the history and results of treatment in two cases are offered.

Case I.—Female, aged 42 years; neurotic. Father and paternal grandfather asthmatic. Thirteen years ago experienced first attack of hay fever. Came on during latter part of August and lasted eight weeks. Commenced with well-marked coryza accompanied with severe nasal dyspnea and considerable bronchial catarrh. For the succeeding five years there was no recurrence of the attacks. Then, for four successive seasons, the attacks were renewed and assumed unusual violence, all of the symptoms being intensified, severe asthmatic paroxysms resulting, which, at one time, were present for a considerable portion of sixteen successive days, and for the relief of which nearly all the various asthmatic remedies were tried, with anything but encouraging results. Three years ago the patient determined to find immunity from the disease by spending the period of the annual attack in some exempt locality. To carry out her determination was found to be impracticable, owing to family matters, and it was then decided that she should be put upon a thorough course of treatment, involving the use of the nerve tonics, aided by proper hygienic conditions. This treatment was instituted in the early part of the month of July, 1891, and was con-

tinued for three months, the remedies indicated in the formula given being the principal therapeusis employed. A prompt response to these measures followed, the strength and bodily weight were increased and a general feeling of well-being ensued. In the last week of August there occurred a mild accession of hay fever symptoms which continued for about four weeks. Throughout the entire attack there was no asthma, although some bronchial irritation was present. Irritation of the naso-pharyngeal mucosa was very much less than it had been in previous attacks, and the nasal dyspnea was milder and much shorter in duration. In fact, the sense of relief was so great that the patient gave up the desire to seek a more congenial climate, and for the past three years has followed the treatment with increasing satisfaction, her hay fever being reduced to the form of a mild coryza without asthma, and with only an infrequent sense of impending nasal dyspnea. Some other measures were tried in this and other cases for the relief of nasal and pulmonary asthma with considerable success, such as blistering between the scapulæ, the inhalation of warm creasote vapor, the use of smelling salts composed of equal parts of menthol and carbonate of ammonia, and vigorous rubbing of the integument of the upper part of the face and the scalp with a flesh brush, not omitting to give the ears a proper amount of brisk rubbing, as recommended by the American Hay Fever Association. Oftentimes, by its derivative action, the last-named expedient temporarily relieves the nasal dyspnea by overcoming the vaso-motor turgescence of the upper air-passages upon which the stenosis depends.

Case II.—Female, aged 47 years; wife of well-to-do farmer; nervous temperament. Three years ago last August first attack of hay fever occurred. Had characteristic coryza, with paroxysms of nasal and pulmonary asthma. The attack lasted about two months, and recurred at the usual time for the next two years when the asthma habit was acquired, the paroxysms occurring at all seasons of the year, from either exposure to cold or mental excitement. On the twenty-second day of January, 1894, she was placed upon the tonic treatment, supplemented for a few days with sedatives for arresting the asthmatic paroxysms then in active progress. The tonic has been taken continuously, with only slight interruption, from that date until the present time, with the effect of completely annulling the asthmatic paroxysms as well as affording almost entire relief from the other symptoms. A transitory coryza appeared for a few days during the early part of September, which has been the only noticeable symptom of the disease. There has also been very marked improvement in the general health and a very considerable increase of the bodily weight, and she is now able to perform her ordinary household duties with comparative comfort. Since last January she has had no other treatment except as

has been mentioned herein, but for a period of two years prior thereto she tried many remedies without obtaining special relief.

In conclusion it may be truthfully inferred that the results obtained in these two cases are only fairly illustrative of the good effects obtainable from the persistent use of the remedies and other measures indicated herein; while, furthermore, this treatment is apparently capable of securing greater relief from the distressing symptoms of hay fever than are derived from the operative procedures for the destruction of the hypersensitive areas of the nasopharyngeal mucous membrane, so much in vogue, without loss of time, absence from home or business or other disagreeable consequence. For these reasons the plan has been very properly termed the home treatment of hay fever, and will, if faithfully executed, sustain the claims made for it.

DISCUSSION.

Dr. J. O. Roe: In the production of hay fever we recognize the fact that we must have three factors. We must first have the local irritant; then we must have the spot that is locally irritated, and we usually have a susceptible nervous system that communicates this local irritation to the general system. Now, the simplest method of treatment of hay fever would, of course, be to remove the local irritant. The next step would be to remove the point of local irritation and at the same time to build up the system and render the nervous system less susceptible to nervous irritation. Now, by the plan of treatment which the doctor has advocated he directs it entirely to the treatment of one side of the question, simply to building up the nervous system so that it will not communicate the affection from the nasal to the other portions of the body. I do not understand why, in order to treat this subject scientifically, the treatment of the disease may not be considered a local treatment just as much as to treat the general system which is irritated with this disease. That is the plan of treatment which is most susceptible of good results, in my opinion.

Dr. Hall: I fully recognized at the outset of my paper the three essential conditions upon which hay fever depends, the same as outlined by the last speaker. We agree in the main, but differ regarding the relative importance of these conditions, especially in their bearing upon the treatment. I maintain that the neurotic condition is the element of primary importance in all cases of the disease, without which it cannot originate or exist, and is, therefore,

the chief object for removal. With some adroitness, the doctor arrives at the conclusion that the primary condition is always the point of local irritation and with its removal the active cause subsides and the disease must necessarily come to an end—aided, it may be, by the action of general remedies. I have reason for inferring that in removing the "point of local irritation," the nasal saw or its equivalent is the measure employed while a minimum of general remedies are given. As the result of my observation, I believe that less cases are cured by the removal of the local irritation than are cured by the general treatment that removes the neurotic element. Moreover, many patients will not submit to the operative treatment, while there are others who are unable to leave home or bear the expense of special treatment. To this class of patients the treatment I have presented offers as good results as can be obtained, even at the hands of the "specialist," and as such should receive the support and encouragement of the general practitioner.

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## THE PATHOLOGY OF TRICHINOSIS.[1]

By FRANK J. THORNBURY, M. D., of Buffalo, N. Y.

My observations include a study of 1,000 cases of trichinosis observed in swine in my work as supervising microscopist in the Bureau of Animal Industry. During the eleven months in which these observations were made, 197,000 hogs have been inspected and from them 400,000 slides prepared, or about 1,300 slides daily. Time will permit only a synopsis of the lengthy article which I have written.

Trichinosis often occurs epidemically in herds of swine. This is a fact which I have repeatedly substantiated. Age is a predisposing cause of infection; old hogs are more liable to be diseased. The parts of the carcass most frequently invaded by this parasite I have found to be the diaphragm, neck and loin respectively. I have statistical observations covering several hundred cases which demonstrate this fact. The encapsulation of trichinæ is a subject which I have investigated somewhat in detail. Often the parasites are enveloped separately, although I have seen as many as eight trichinæ in a single capsule. When a specimen is recently invaded the parasites are found unencapsulated and sometimes *in motion*. This motion may be enhanced by applying heat to the slide, when

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

all sorts of contortions are seen until the parasites become dead and motionless. Meat may be digested artificially and the trichinæ liberated from their capsules by submerging it in water at 98°, to which hydrochloric acid and pepsin are added in the proportions found in the gastric juice. This is an efficient means of observing their motion. The capsules occupied by the trichinæ are usually oval and often much elongated. They may be perfectly round. The changes retrogressive—which they with their contents tend to undergo—are calcification, dark pigmentation and disintegration, varying from slight to complete loss of identity. I have observed trichinæ escaping from their capsules and have seen them advance and recede under the microscope. Dr. Hill has photographed them for me in this condition. In fresh specimens only empty capsules and liberated trichinæ are seen many times. I have sixty micro-photographs illustrating the pathology of trichinosis, which I will now have thrown upon the screen, and I will point out to you the conditions in particular which each photograph represents. These photo-micrographs have been made by Dr. Hill, of the University of Buffalo, from slides which I have referred to him.

In a study of the subject of trichinosis in the human I found 14 per cent. of a series of cases in the dissecting-rooms of the University of Buffalo invaded by this parasite. When a quantity of trichinæ not sufficient to produce death is ingested, they bore into the muscles even of remote parts, and I believe that many cases of chronic muscular rheumatism are due to the lodgment of this parasite in the muscles. In fact, the cases investigated are corroborative.

I have frequently observed trichinæ in adipose tissue and had them photographed in this position. Encapsulation here is very imperfect.

Recently an epidemic of trichinosis occurred in Halstadt, Belgium. There were thirty-nine cases, thirteen of which proved fatal. Old and obscure trichinæ cysts may similate Meischerian sacs, miliary tubercles, aggregations of fat globules and certain other conditions; from these they must be differentiated. Fifty thousand trichinæ may be present in a single ounce of pork. I have observed over 1,000 in a single slide.

I am limited to ten minutes for this synopsis, so will have to conclude. My paper will appear in full, with illustrations, in the Reports of the Bureau of Animal Industry of the United States Department of Agriculture.

# ATONIC DYSPEPSIA.[1]

By A. L. BENEDICT, A. M., M. D.,
Lecturer on Digestive Diseases, Dental Department, University of Buffalo; Consultant in Digestive Diseases, Riverside Hospital, Buffalo.

This term, a few years ago in common use, has, in the last two or three years, fallen into reproach as indicating slip-shod methods of diagnosis. At times, when circumstances have prevented thorough investigation and symptoms have pointed plainly to a dyspepsia and to a general loss of tone, the term has almost thrust itself upon me and I have used it apologetically, yet reflection fails to show why an apology was necessary.

So shrewd a clinician as Dr. Wm. Pepper has recognized atonic dyspepsia as a type and has characterized its symptoms as follows: A large, flabby, tooth-marked tongue, not necessarily coated; languid appetite; after eating, a sense of weight referred to the epigastrium; following this, distention of the epigastrium and abdomen from the development of flatus by fermentation of the gastric contents lying too long in the stomach; depending on the flatus, eructations and borborygmus; a sense of heaviness and dulness following meals; a full and, often, moderately tender abdomen; sluggish bowels; urine containing an excess of urates; lack of nourishment and, consequently, general enfeeblement and pallor; relaxation and low tone of the whole system, of which the indented tongue is an index.

The protest against the term, atonic dyspepsia, is due to a tendency, excellent in itself, to employ analytical and objective methods of diagnosis. But much may be learned from subjective symptoms, and analysis, to be of practical value, must be followed by synthesis.

It is convenient and abstractly correct to classify functional gastric disturbances into motor, secretory, sensory and absorptive, and to recognize under each head an elevation or depression of function. But we must not imagine for a moment that we have to deal with eight corresponding types of dyspepsia nor indulge the vain hope of finding remedies whose actions are as delicately shaded as the subtleties of our classification.

The sensibility of the stomach is normally so vague that it can scarcely be below par and, excluding pure neuralgia and hysterical hyperesthesia, an increase of sensibility points to some motor or

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

secretory trouble. Anatomists have discovered no difference between the innervation of the muscular and the glandular elements of the stomach, and we can scarcely imagine a perversion of one function without a similar change in the other. Absorption depends, first, upon perfect digestion; secondly, upon the circulation of blood and lymph; thirdly, upon various mysterious osmotic conditions. It is very questionable if we have any reliable test for absorption further than noting the condition of the stomach contents and the general nutrition. It is certain that we have no means of stimulating absorption without also stimulating secretion and motion. It is altogether likely that absorptive failure does not occur if digestion is perfect.

Dr. Pepper, the master of clinical medicine, although he defines atonic dyspepsia as that form in which the muscular coat is *the* element affected, immediately contradicts his definition in the typical picture which he draws. The gaseous distention is not due to a paralyzed muscular wall, but to the work of microörganisms of fermentation growing in the absence of hydrochloric acid. The sense of dulness, the loaded urine, the lack of nourishment, and consequent general enfeeblement, are due, not to muscular weakness, but to perversions of secretion and absorption.

Ewald insists on the use of the term gastriatony in the limited muscular sense, but his brief discussion, from which case reports are conspicuously absent, only confirms the belief that the condition is purely an abstraction or of phenomenal rarity.

If the secretions are perfect, what serious effect can follow from any moderate degree of gastric sluggishness? The time at which the stomach empties itself into the intestine differs widely with individuals and with variations of diet. So long as no chemical indigestion occurs there is no disease. Neither can the lack of churning amount to much if secretion is normal, for thousands of persons in perfect health do not masticate properly, and if the gastric juice can penetrate to the center of an unchewed lump of meat, it can certainly permeate a soft mass with very little aid of muscular contraction.

I believe we may substitute for the complicated classification of gastric neuroses, which some authorities have suggested, the very simple one of atonic and irritative types, in which muscular and glandular functions fall or rise together, while the sensibility is merely symptomatic. Occasionally a unique case may arise to justify the more complicated nomenclature.

In atonic dyspepsia, there is a diminished secretion of hydrochloric acid, a delayed and insufficient peptonization of proteids, a corresponding delay in absorption and more or less sluggishness of the gastric muscle, with constipation, indicating a similar intestinal weakness.

In the opposite, irritative type, there is an increase in the secretion of hydrochloric acid, an excessive capability for proteid digestion, a delay in the conversion of carbohydrates into maltose, because ptyalin digestion is inhibited in highly acid media, more or less complaint of pain and an irritable muscular wall. This neurosis may culminate in self-digestion of the stomach ; in other words, in gastric ulcer.

In the former type, the decrease of hydrochloric acid allows the development of microörganisms, which may produce an excess of lactic, butyric and acetic acids, with gases of fermentation. Such cases, to which the term fermentative dyspepsia is applicable, though essentially atonic and sub-acid, may give rise to many sensory and motor symptoms of irritation. In some of these cases there is a predomination of one kind of ferment. Thus, I have found butyric acid persistently present, along with its cause, the bacillus butyricus. Some patients, from the relative excess of acetic acid, speak of themselves as vinegar factories. In still other cases lactic acid is in excess, and even when there is no free acid. I have often found a marked ferric chlorid test for lactates. I question whether the lactic acid, found as the result of fermentation, is chemically identical with the normal lactic acid of the preliminary stage of digestion. In fact, some recent investigations of Penzoldt have shown the reaction to be so frequently present in healthy persons after various foods and drinks, that it is very questionable whether it is not produced in the absence of lactates and whether it has any clinical significance.

Except in high grades of acute gastritis, in the late stages of chronic catarrh and cancer and, as death approaches, in almost any disease, there is no failure of rennet and pepsin, the unorganized ferments of the stomach. On the other hand, as these ferments act qualitatively rather than quantitatively, we cannot imagine them to be in excess. Thus there is no excuse for giving pepsin, except in those cases in which it is far better to administer predigested food.

The ultimate cause of atonic dyspepsia is constitutional depression. It may be due to overwork and especially to prolonged

worry. Sometimes the dyspepsia is the first manifestation of tubercular poisoning. Again, there seems to be an inherent failure of the innervation of the digestive organs. Once established, the dyspepsia is, in turn, the cause of loss of strength, of mental inertia and of visceral weakness. Some degree of simple anemia is almost inevitable. The exciting cause may be an illness of any kind, the excessive use of tea, coffee or other beverages, the lack of proper food, some error in habits of eating; often it is not discoverable.

The synopsis of symptoms by Dr. Pepper needs no addition, but the results of physical examination are important. On percussion, or succussion, or by filling the stomach through the tube, dilatation will be found to be absent, though there may be some relaxation and sagging even as low as the umbilicus. Serious disease of the liver, heart and kidneys would point to the probability of gastric catarrh, which would be verified by finding an excess of mucus in the stomach contents. Chemical examination of the contents is important; in fact, a positive diagnosis of the exact form of dyspepsia can be made in no other way. If only one or two such examinations are to be made, and more are usually unnecessary, it is best to siphon out the stomach contents an hour and a half after the test meal. The preliminary stage of digestion, in which organic acids and carbo-hydrates are normally present, should be completed in an hour, but it is well to allow half an hour's leeway for the purpose of excluding slight deviations from the normal. A mixed meal of proteids, cooked starch and fat is given, comprised in a broiled steak or chop, dry bread and butter with a glassful of water. Raw starches are excluded, since they are not digested till the intestine is reached. In a normal stomach, at the end of even an hour, this test meal will be well on the way to perfect digestion. The butter and meat fat will be recognized as oil globules without rancidity, the starch will have been converted by ptyalin into maltose and absorbed, so that neither starch nor sugar will be present in the filtered stomach contents. This filtrate will also contain some albumin, a good deal of peptone and a moderate amount of propeptone, which is a transition form in the digestion of egg and plant albumin, and here represents the nitrogenous part of wheat. The various organic acids of fermentation will be absent, but there will be a strong hydrochloric acidity.

In the ordinary cases of atonic dyspepsia, there will be a moderate degree of acidity, but with hydrochloric acid reduced in

quantity and, in a surprisingly large proportion of cases, the usual tests will not reveal it at all. Butyric, acetic and lactic acids, with their microörganisms, will be present. Sometimes there will be no free acid, but an abundance of lactates. When there is not a high fermentative acidity, there is nothing to prevent the digestion of starches by ptyalin, but the absorptive power of the stomach may be at fault, so that sugar will remain after the starch has disappeared. If there is much fermentation, undigested starch will also be present. The albuminoids, instead of showing well-advanced peptonization, will be principally represented by undigested albumin and moderate amounts of propeptone and peptone. But it seems that the pepsin and hydrochloric acid, having once attacked a particle of albumin, digest it pretty thoroughly before they attack other particles, so that the filtrate may not show a conspicuous lack of digestive power, whereas a simple inspection of the stomach contents demonstrates that most of the meat is untouched. Again, an abundance of peptone may mean, not that proteid digestion is good, but that absorption is weak.

The treatment consists in supplying the deficient hydrochloric acid, which is normally present in the proportion of 2:1000 ; how much is formed altogether we do not know. If we estimate the stomach contents at 500 c. c., (about a pint,) the normal amount of hydrochloric acid is 1 gram, corresponding to a dessertspoonful of the officinal dilute acid. Practically, a tenth or twentieth of this dose usually suffices, if given at the time when it is most needed, an hour after eating. If a larger quantity is necessary, it should be given in divided doses, well diluted, sipped at intervals of a few minutes, beginning three-quarters of an hour after eating. The administration of pepsin is a confession of ignorance. The patient should be urged to take common salt in abundance, since it is from chlorids that hydrochloric acid is formed.

To stimulate motor, secretory and absorptive activity, the simple bitters may be used, but I prefer strychnine in two milligram doses, given before meals in tablet and swallowed quickly to avoid the taste. Hot water is also an excellent stimulant, and it may be used to wash down the strychnine or, if the latter is not used, a weak, hot soda solution may be given to excite the opposing acid secretion and to dissolve the mucus in those cases in which an essentially functional indigestion has caused a slight catarrh. Strychnine and hydrochloric acid are usually sufficiently antiseptic to relieve any moderate degree of fermentation. If necessary, resor-

cin, menthol, salol, etc., may be used. I should like to urge again the use of an oily solution of menthol sprayed through the stomach tube. This treatment, which I first reported in 1892, I have found especially adapted to gastric catarrh and atonic dyspepsia with fermentation. If there is intestinal atony as well as gastric, cascara sagrada may be added to the hydrochloric acid. I do not believe in restricting the diet to any extent; it is our business not to reduce the food to the capabilities of the stomach, but to raise the digestive power to the demands of ordinary diet. Tea, coffee and coarse vegetables should, however, be interdicted. Iron and arsenic are usually indicated as general tonics, but often forbidden by the condition of the stomach. Reduced iron, the carbonate or other mild preparations should be preferred. Ordinary hygienic vigilance must be observed.

174 Franklin Street.

DISCUSSION.

Dr. A. A. Jones : I do not think that we very often find cases of sub-acidity, cases of hypochlorhydria, developing gastric ulcer, as it is so well known in the majority of cases of gastric ulcer there is hypochlorhydria. Erosions of the stomach are not uncommon in this condition designated by Dr. Benedict. But it has been found by those who have studied diseases of the stomach, and by myself in two or three cases that I have studied, that with the erosions there is almost never gastric ulcer. I mean the true, typical peptic ulcer.

Dr. A. L. Benedict : I will say, Mr. President, that Dr. Jones simply misunderstood me. I spoke of the super-acid type in contradistinction to the atonic type and the sub-acid type as culminating in gastric ulcer. I recognize that true peptic ulcer cannot grow in dyspepsia, unless it be, possibly, the exception which proves the rule.

I think our ideas with regard to lactic acid will have to be modified somewhat by a series of experiments by Penzold, which have been recently reported in a German magazine. He has found the test for lactic acid in the wash water from a perfectly healthy stomach. He has found the same test, one which is ordinarily used, after all sorts of food—plain fish, meat diet—in fact, almost everything and in a series of healthy persons. He has found that alkali and sugar, and in respect to this I can verify his tests, will give the test in the presence of lactic acid. He has also found some of the

most marked tests for lactic acid. When the attempt is made to convert the lactic acid into the lactate of zinc failed utterly. So that the test does not always show the presence of lactic acid. And, furthermore, in his series of 100 cases of persons in all kinds of diet, where we have usually considered lactic acid to be present only in the preliminary stage of digestion, he finds the tests to be more marked at the end of the first hour and to continue almost up to the time of the emptying of the stomach.

Dr. ZIMMER : It is always surprising to me that when gentlemen read papers on dyspepsia and indigestion and disease of the stomach, they pay so much attention to remedies and not to diet. I believe it depends more on diet than all the remedies we can possibly put into a person's stomach to overcome acid fermentation or the other products of fermentation, decomposition, and so on. There is nothing I like to get hold of better than a case of stomach trouble that some one else or that other physicians have had and seemingly have been unable to do much for. I do not depend on medicines. I give them a little medicine, it is true, because they would not have any confidence in me if I did not. But I just put that patient on a very strict and limited diet. I make him adhere to it, and tell him, if he don't want to do that, he need not come to see me. My usual diet is this : I avoid everything, as I tell them, that is of a skinny nature ; that is to say, anything that has a skin to it I want them to avoid. I will not allow them to eat a cherry ; I will not allow them to eat an apple with a skin on it; I will not allow them to eat grapes with a skin, or raisins, and I consider that cabbage is similar to that, also onions, and I usually put those patients on fresh meats, fresh fish and stale bread, eggs, milk, etc. But, as I said before, I do not depend much on medicine. I do not wash out the stomach, because I do not think it is necessary.

Dr. JONES : Mr. President, as regards Dr. Benedict's remarks, I quite agree with him that owing to recent investigations by Penzold and Boas, whose latter investigations I have incorporated in my paper, but did not read them on account of lack of time, it has been found that lactic acid is not present during any part of digestion in a healthy stomach. After many investigations, Boas comes to that conclusion, and in only one condition of the stomach is lactic acid present. That, he says, is cancer. When lactic acid, therefore, is present, Boaz considers that diagnostic of cancer. The test of lactic acid has, in my hands, been rather satisfactory,

although there are certain other drugs, acids and coloring matters that will give the same reaction. But, in many of these cases, in active fermentation, not only do we mean lactic acid fermentation, but fermentation of all kinds in the stomach, that which will produce sour, very acid, irritating contents. Acetic, butyric and lactic acid fermentation go together. As regards the remarks of Dr. Zimmer, I do not think that, while we may value diet very highly indeed, that it is strictly scientific to base a diet upon anything but a study of the stomach contents.

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## CONSTITUTIONAL TREATMENT OF DISEASES OF THE FEMALE SEXUAL ORGANS.

By WILLIAM REDIN KIRK, M. D.,

Assistant to the Chair of Gynecology in the Hospital College of Medicine; Visiting Gynecologist to the Louisville City Hospital, etc., Louisville, Ky.

Disorders of the female sexual organs are no exception to the universal rule that all local diseases, whether organic or functional, are largely under the control of general systemic medication. This simple truth in the present operative era of gynecology is often overlooked in the mad desire to establish brilliant surgical statistics, and unwarrantable invasion, for the relief of local conditions, is often practised in the name of science when the cause is far remote, as is generally evidenced by the failure to relieve the symptoms.

It is not my object in this paper to underrate the importance of local medical or surgical interference in those cases which require prompt and effective action, but to call attention to the fact that many of the simple, though none the less aggravating, forms of sexual disorders are greatly benefited and often relieved by judicious constitutional medication.

Bearing in mind the dependence of the sexual organs upon the nutritive and nervous systems for proper nutrition and innervation, it readily becomes apparent the effect that derangement of the general constitution may have upon these special organs, and the relief which can reasonably be expected by directing our agents through these channels, instead of needlessly tinkering with slight local conditions, which have been magnified by the imagination into lesions of serious importance.

The overworked school girl, housed and enervated, complaining of loss of appetite, cold feet, headache, backache and general

malaise, will most likely be found suffering from amenorrhea, accompanied by a slight vaginal catarrh and constipation. She needs no local treatment, and it would be outrageous to subject her to the humiliation. The trouble lies beyond, in the central nervous and nutritive systems, which have been sapped of their energy at a time when most needed to support and supply nervous energy to the rapidly developing reproductive organs.

Almost the identical symptoms are found in the over-worked factory girls, who are insufficiently clothed and nourished, and shop girls, who are compelled to stand for hours behind counters, in close, illy-ventilated stores, at times when the sexual system is at its periods of greatest activity.

These symptoms are not confined to the indigent and laboring classes, for nervous, irritable women, who lead sedentary, objectless lives, and that large army of society votaries, who spend their time flitting from one social function to another, wasting their nervous energy on balls, receptions and late suppers at the club, pay the penalty of their folly sooner or later. These form by far the greatest number of cases of dysmenorrhea which fall to the care of the gynecologist.

The loss of sleep and excitement soon fades the beautiful rosy bloom from the debutante's cheek and fills the nights with restlessness and her days with pain and care. She is compelled at each menstrual epoch to seek her couch, for the congested and hypersensitive endometrium cries out with pain. She has headache, backache, pelvic pains, irritable bladder, pain down the thighs and spinal irritation, all due to hyperesthesia of the lining membrane of the uterus, brought about by nervous exhaustion.

What all these cases need is radical change of habits, good wholesome food, plenty of air and sunshine, and general tonic treatment, combined with some agent which has a special predilection for the sexual system.

Such agents are called alterative uterine tonics, and of such agents my choice has long been that very happy combination of uterine alteratives and sedatives called ponca compound; it has a decided effect upon the endometrium. It owes its therapeutical value to the following agents:

Mitchella repens is astringent, diuretic and parturifacient. It also favors the occurrence of menstruation and is an excellent remedy in the treatment of dysmenorrhea and menorrhagia. The characteristic pains of the disorder diminish in intensity and dis-

appear completely under its use. It is also of use in colic and has been found peculiarly efficacious in atony of the female generative organs and in leucorrhea.

Caulophyllin is a general systemic sedative and antispasmodic in its action. It exerts a decidedly alterative influence on the uterus, whence its value in subinvolution and endometritis. It also exerts a similar influence upon the ovaries, whence the benefit resulting from it in amenorrhea and menorrhea. Its antispasmodic action is evident in its influence over hysteria. In threatened abortion and allied conditions it is of value.

Helonias is an excellent general nervine tonic, with a special tendency to the bladder, gastrointestinal tract and pelvic organs. It is of decided value in cystitis, ascites and in amenorrhea, dysmenorrhea and menorrhagia.

Viburnum paralyzes both the centers of voluntary motion and the reflex functions of the spinal cord, without impairing sensation or consciousness, and it is consequently an approved remedy in all diseases characterized by excitability of the motor centers. It has a special relation to the uterine nervous system, has been found especially invaluable in menorralgia, dysmenorrhea, in abortive tendencies, in after-pains, in ovarian irritations and in menorrhagia.

It has long been my habit to prescribe it alone, or in combination with other agents. In the amenorrhea of anemia and nervous exhaustion I find it quite a valuable aid to the regular treatment, and in nervous dysmenorrhea I rely upon it more than the bromides, as it relieves the spasms and has a sedative effect upon the pelvic circulation, without impairing sensibility, or the risk of producing drug habit.

Ponca can be continued with impunity between the menstrual epochs, when bromides, given even to the point of relieving nervousness without producing sleep, can hardly be continued longer than a few days.

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According to Bruns, six per cent. of patients under ten years of age who have been cured of hip disease, nine per cent. of those between ten and twenty years and seven per cent. of those above twenty years of age, succumb eventually to tuberculosis of other organs.—*Memphis Medical Monthly.*

# Clinical Lecture.

## IDIOCY.

By J. W. PUTNAM, M. D.,
Professor of Nervous Diseases, University of Buffalo.

Gentlemen.—I have the opportunity of showing you, today, a number of idiots. Idiocy is a form of mental incapacity which must be differentiated from insanity. The latter is a disease developing in a brain previously healthy and well developed, while idiocy is a mental condition due to a poorly developed brain.

What are some of the causes of idiocy? In the first place, there is idiocy due to fetal causes. Secondly, we may have a perfectly developed fetus up to the time of parturition and then pressure upon the brain, due to the processes of labor or to the forceps, may cause either a meningeal hemorrhage or a thrombosis or a small submeningeal hemorrhage. Thirdly, we have, later in life, up to the age of four, during the period of development of the brain, eclampsic idiocy. By this is meant an idiocy coming on after the convulsions of teething and bowel troubles. Then we have an apoplectic idiocy which is developed before the age of seven. Again, there is microcephalic idiocy, which is due to a small skull, or one in which the fontanelles and sutures have closed too early to allow the proper expansion of the developing brain. In hydrocephalic idiocy, also, there is an undue pressure upon the brain. There may be trauma of the brain from falls and blows received during infancy and producing a hemorrhage or depression of the skull, etc. Then we have cretinism, which is a form of idiocy associated with goitre, which we rarely see in this country, but which is met with quite often in the Alps and the Himalayas. Again, there is an idiocy due to encephalitis or polio-encephalitis, which latter condition was assumed theoretically by Strümpel and afterward proved to exist in certain cases. Strümpel thought that this was the most common cause of idiocy, especially when associated with paralysis and spastic cerebral paralysis. Dr. Sachs, of New York, who has made an analysis of 140 cases of spastic cerebral paralysis, has determined that the most prominent causes are cerebral hemorrhage, cerebral embolism, and cerebral thrombosis. He does not agree with Professor Strümpel that this condition is analogous to the spastic paralysis of infants which is a polio-myelitis. In fact, he thinks that polio-encephalitis, which was put forward by

Strümpel as the most prominent cause of idiocy, is the least common cause.

As an illustration of this type of trouble, I show you a boy aged seven who is a twin. He was born at term, the breech presenting and forceps were applied to the after-coming head. He is of a far higher grade of idiocy than the child with athetosis. He is able to speak and to enjoy life. He looks at pictures, recognizes his friends, plays and has, apparently, no moral perversion such as is quite characteristic of the idiot. He has never had convulsions; he has simply had this birth palsy.

There is a difference in the size of his hands, a difference in the length of the forearms and in the slope of the shoulders. The suspender will stay over the right shoulder, but not over the left. He does not rest on his heel, there being talipes equinus. The development of the bones and muscles of both limbs on the left side, and of the left side of the head and face, is less than on the right side. The palate is highly arched, the teeth are fairly good, the temporal regions of both sides are depressed so that the skull is narrow in the bi-temporal diameter. You will notice a flexion of the wrist and a certain degree of spastic condition. Infantile spastic cerebral paralysis may be monoplegic, hemiplegic or diplegic.

In a case of this degree of idiocy, what is to be done? Ordinarily, a child of this grade of intellect cannot get along at the common school with the usual methods of teaching. He can be educated, however, by going to a special school, where particular attention and study is given to teaching inferior intellects. There is such a school at Syracuse. This patient is a little irritable, but he is healthy and he promises a good deal. He can be taught some trade beside other accomplishments.

The third case is one of microcephalus in a child of four. The patient is unable to stand, unable to coördinate its movements and is able to say only half a dozen words. The cause of the trouble in this child is the early closing of the sutures and fontanelles of the skull. The relief of this form of idiocy has been unsuccessful until the last three years. Within that time, surgeons have devised an operation which has proved successful in a number of cases. The operation consists in channeling with a chisel along each side of the sagittal suture and running channels also in other directions, according to the shape and the depressions of the skull. Sometimes the additional grooves are made from the anterior

fontanelle downward and from the posterior fontanelle backward. This operation gives the brain a chance to grow if it will develop. Certain cases published by Lannalongue, and one or two by W. W. Keen, and several by other operators, including our own surgeons, Park and Mynter, have shown good results. I think, therefore, that in a case of idiocy due to microcephalus we are justified, rather than to allow the child to spend its life in hopeless helplessness, to advise such an operation. There is, apparently, no danger in the craniotomy. It is simply a bone operation, and the brain itself receives no exploration and no injury. The risk that is run is slight compared with the chances for improvement.

There is one form of idiocy which I have not yet mentioned, the idiocy of deprivation ; that is the form which is caused by the absence of one or more of the senses. Such a case was that of the famous Laura Bridgeman, who had none of her senses except touch, yet, by the development of that sense at the expense of a great deal of labor, the most that could possibly have been made of her intellect was effected. But a patient who is born deaf, dumb or blind has a latent cause of idiocy, and if not properly trained by masters who understand the development of the mind under this serious handicap, then the child is more than likely to develop idiocy due to the deprivation.

388 Franklin Street.

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# Reports of Societies.

## THE EIGHTH PERIODICAL INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, HELD AT EDINBURGH, AUGUST 7–11, 1894.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

(*Continued from page 299.*)

### OPENING OF THE CONGRESS.

The congress was opened Tuesday morning, August 7th, in the physiological department of Edinburgh University. On the nomination by Dr. Berry, of Edinburgh, Dr. Argyll-Robertson was elected president of the congress. On taking the chair he bade the members, on behalf of the committee, a hearty welcome to the ancient capital of Scotland. He pointed out how much the city owed to its beauty of situation and to its historical associations.

In particular, it was interesting to members as a seat of a university that had long been famous for the eminence of its medical school. Thirty-seven years had now elapsed since the first international ophthalmological congress, and they might pride themselves on being among the first to institute such meetings. Many changes had occurred in their ranks since the first meeting in 1857, and even since the last meeting at Heidelberg in 1888. They had to deplore the loss of two members who took the most prominent part in it—Prof. Donders and Prof. Becker, the former supreme in the domain of physiological optics, the latter the oculist to whom science was in particular indebted for his able investigations into the anatomy and pathology of the crystalline lens. He could not omit reference to one other misfortune which they had to deplore. At the last congress they rejoiced in one of the greatest, if not the greatest, physicist of the day, and one to whom ophthalmology was deeply indebted for the great progress it had made in recent times. Helmholtz was there, deeply interested in their work and giving them the advantage of his coöperation. Who was there that was present on that occasion that did not recall with affection and reverence the frank, simple and manly countenance of him to whom they owed the ophthalmoscope and whose genius had ranked him among the foremost of scientific men? Only the other day they were saddened with the news that their revered master was ill, stricken with paralysis. He was sure they all deeply sympathized with him in his affliction and prayed for a rapid recovery from his serious illness. The president congratulated those present upon the flourishing prospects of the congress. At the last meeting he said the propriety of continuing to hold an international ophthalmological congress was considered worthy of discussion by the president, Dr. Donders. The decision arrived at was that these meetings should not be discontinued, and it was to him a source of great satisfaction. This congress showed no signs of decline; it retained its full vigor and vitality. It was no weak, puny shoot of what might be viewed as a parent trunk, dependent upon it for its very existence; but it was a sturdy, vigorous, independent plant, full of the sap of vigor and life. They would prove traitors to their noble leaders, Von Graefe, Donders and Bowman, were they to allow the institution they were so deeply interested in to die. Might the international ophthalmological congress ever flourish, and might each successive meeting be more prosperous than the preceding one.

On motion of the president, Mr. Power, of London, and Mr. Swanzy, of Dublin, were elected vice-presidents of the congress; Dr. Geo. A. Berry, of Edinburgh, was elected secretary-general; Dr. Parent, of Paris, Dr. C. Hess, of Leipzig, and Dr. Fergus, of Glasgow, assistant secretaries. The following honorary presidents were elected: Prof. Panas, Dr. Meyer and Dr. Landolt, of Paris; Prof. Zehender, of Munich; Prof. Leber, of Heidelberg; Prof. Hansen-Grut, of Copenhagen; Prof. Reymond, of Turin; Prof. Snellen, of Utrecht; Dr. St. John Roosa and Prof. Knapp, of New York; Mr. Critchett, of London; Mr. Priestly Smith, of Birmingham; Dr. Little, of Manchester; Dr. Pridgin Teale, of Leeds, and Dr. Reid, of Glasgow.

The Lord Provost, Sir James Russell, was then introduced, and said it was a great pleasure to be present on that occasion and to extend to the congress a right hearty welcome to the ancient city of Edinburgh. He referred to Edinburgh as a favorite meeting-place for various bodies and a city largely interested in medicine. They had a university and medical school of which they were proud, a university which, unlike other Scottish universities, did not owe its origin to ecclesiastics or to the church. It was founded more than three hundred years ago by the king of Scotland and by the town council of the city, and the town council has ever since had the warmest interest in its prosperity. They were, therefore, probably more than any other town in the kingdom, deeply interested in the progress of medicine, and had a greater appreciation, and had a possibly greater knowledge of the men who were engaged in its practice, and they felt that in welcoming this congress they were welcoming those who ought to be and were their friends.

The president then said he was sure they had all listened with pleasure to the Lord Provost and appreciated his kindness in welcoming this congress. Perhaps they were not all aware that it was a very unusual circumstance in Edinburgh for a member of their own profession to hold the responsible office of the Lord Provost, and on that account, and also on account of the interest he had manifested, he asked the congress to confer upon his lordship an honor which was unusual and in their case unique, that was, to make him an honorary member of the Edinburgh congress. This was done.

The congress was then declared open for scientific work, and during the sitting of four days fifty communications were presented, as follows:

### First Day, Tuesday, August 7th.

1. On the subconjunctival treatment of operative and traumatic wounds of the cornea, by Dr. Snellen, of Utrecht.

2. Remarks on cataract extraction, based on a recent series of 600 successive cases, by Dr. Knapp, of New York.

3. Scleral puncture as an adjunct to iridectomy in the treatment of glaucoma, by Mr. Priestly Smith, of Birmingham.

4. Injuries of the eyes caused by pieces of copper or brass, by Dr. Leber, Heidelberg.

5. Traumatic paralysis of the motor nerves, by Dr. Panas, of Paris.

6. (*a.*) A new operation for ptosis. (*b.*) Treatment for the immediate cure of corneal ulcers, by Dr. Mules, of Bowdon, Cheshire.

7. Drainage of the eye, by Dr. Pflüger, of Bern.

8. Method of relieving tension in chronic glaucoma, by Mr. Walker, of Liverpool.

### Second Day, Wednesday, August 8th.

#### demonstrations.

9. Albuminuric retinitis, by Dr. Dimmer, of Vienna.

10. Contribution to the anatomy and physiology of the iris, by Mr. Juler, of London.

11. The histological changes which accompany the healing of perforating wounds of the sclerotic, by Dr. Franke, of Hamburg.

12. Orbital cyst with microphthalmus, by Dr. Lapersonne, of Lille.

13. Exhibition of aseptic collyria, aseptic case for dressings, and a new skiascope, by Dr. Darier, of Paris.

14. Alteration in the cells of visual centers produced by exposure of the eyes to light, by Dr. Gustav Mann, of Edinburgh.

#### papers.

15. Chorio-retinitis—clinical varieties, etiology, treatment, by Dr. Abadie, of Paris.

16. Changes in the macula associated with retinal inflammation and edema, by Mr. Gunn, of London.

17. Recurrent, temporary, visual obscurations with ophthalmoscopic appearances observed during the obscurations, by Dr. Benson, of Dublin.

18. Retro-choroidal hemorrhages after operations on the eye, by Dr. Dufour, of Lausanne.

19. Mechanism of accommodation, by Dr. Tscherning, of Paris.

20. Treatment of ocular diphtheria by crude petroleum, by Dr. Vian, of Toulon.

21. Effect produced by the pressure of the lids upon the cornea, by Dr. Bull, of Paris.

22. Optic neuritis of tonsillary reflex origin, by Dr. MENACHO, of Barcelona.

### THIRD DAY, THURSDAY, AUGUST 9TH.

#### DEMONSTRATIONS.

23. New method of hardening eye-preparations by formol, by Dr. LEBER, of Heidelberg.

24. Ulcers of the cornea produced by staphylococci, by Dr. BACH, of Würzberg.

25. Structure of the ganglion cells of the retina, by Dr. BACH, of Würzberg.

26. Nature of Schlemm's canal, by Dr. GUTMANN, of Berlin.

27. Two cases of serous cyst of the iris, by Dr. CLARK, of Columbus, Ohio.

#### PAPERS.

28. Operations for strabismus (strabotomy), by Dr. LANDOLT, of Paris.

29. Relative value of mercury and iodide of potassium in the treatment of ocular syphilis, by Dr. CHIBRET, of Clermont-Ferrand.

30. The best way of using mercury in ocular therapeutics, by Dr. DARIER, of Paris.

31. Correction of high degrees of myopia by removal of the crystalline lens, by Dr. THIER, of Aix-la-Chapelle.

32. Indications for removal of the crystalline lens in high myopia, by Dr. FUKALA, of Pilsen.

33. Operation for occlusion of the pupil in aphakia, by Dr. NOYES, of New York.

34. Anatomy of the ciliary ganglion, by Dr. MICHEL, of Würzberg.

35. New metric or dioptral system of measuring and designating prisms, by Dr. BURNETT, of Washington.

36. Treatment of certain forms of optic-nerve atrophy by antipyrin, by Dr. VALUDE, of Paris.

### FOURTH DAY, FRIDAY, AUGUST 10TH.

#### DEMONSTRATIONS.

37. Illustrations of leprous diseases of the eye, by Dr. BORTHEN, of Drontheim.

38. Apparatus for skiascopy, by Dr. RISLEY, of Philadelphia.

39. Granulation and chalazion forceps, by Dr. AYRES, of Cincinnati.

40. Case of lymphoma of the four eyelids cured by internal use of arsenic, by Mr. BRONNER, of Bradford.

#### PAPERS.

41. Maturation of senile cataract by preliminary iridectomy with trituration of the lens, by Mr. MCHARDY, of London.

42. Sympathetic ophthalmia after sarcoma of the choroid, by Dr. NIEDEN, of Bochum.

43. Radical cure of strictures of the nasal duct, by Dr. THEOBOLD, of Baltimore.

44. Treatment of congenital hydrophthalmia, by Dr. STŒLTING, of Hanover.

45. Treatment of conjunctival granulations by electrolysis, by Dr. MALGAT, of Nice.

46. Associated paralysis of movements of the eyes upwards, downwards and for convergence, by Dr. SAUVINEAU, of Paris.

47. Operative cure of persistent tabetic ophthalmoplegia, by Dr, CHEVALLEREAU, of Paris.

48. Oblique astigmatism and the oblique muscles, by Dr. SAVAGE, of Nashville, Tenn.

49. A study of abnormalities of ocular balance, by Dr. RISLEY, of Philadelphia.

50. The relation of the function of accommodation to that of convergence, by Dr. STEVENS, of New York.

For purposes of abstract and analysis these fifty communications and the discussions which they elicited, may be grouped into those which treated of histological anatomy and physiology, pathological anatomy, etiology, particular diseases, injuries and accidents, medical therapeutics, operative therapeutics, instruments, miscellaneous.

### HISTOLOGICAL ANATOMY AND PHYSIOLOGY.

JULER (10) exhibited microscopical preparations verifying the works of Schwalbe, Treacher Collins, and others regarding the existence of a dilatator pupillæ muscle. These dilator fibers extend in the posterior layer of the iris from the ligamentum pectinatum, without to the sphincter of the pupil within. This muscle has two actions: (1) it dilates the pupil; (2) by its action on the ligamentum pectinatum it tends to close the spaces of Fontana. Recently its presence has been established physiologically by the experiments of Langley and Anderson.

MANN (14) gave an exceedingly interesting demonstration purporting to show the physiological changes which take place in the cells of the visual centers of the brain through the action of light on the retina. It had been shown that the nuclei of the sympathetic nerve-cells enlarge as the result of stimulation for fifteen minutes and become shrivelled after prolonged stimulation. He had made numerous preparations showing that in all cases the

nuclei first enlarge, and that both cells and nuclei lose their chromatin, in part, on stimulation of fifteen minutes to five hours, but if continued nine hours the nuclei shrivel. The same holds good for motor cells of the brain and spinal cord. Excitation of the retina by light produces the changes referred to in the cells of the optic apparatus, especially in the ganglion cells of the rods of the retina, in the cells of the external geniculate bodies, in those of the anterior corpora quadrigemina, and the cells of Ramon y Cajal between the molecular and the small pyramidal layer of the lower aspect of the occipital lobes in rabbits.

Bach (25) described the minute structure of the retina and held that its ganglion cells do not have a fascicular disposition, but that they are granular and their contents nuclear.

Gutmann (26) had injected colored liquids into the canal of Schlemm in 35 cadavers, with the result of absolutely confirming the opinion of Schwalbe that a communication exists between this canal and the anterior chamber of the aqueous humor.

Michel (34) showed some excellent microscopical preparations of the ciliary ganglion, demonstrating that in its minute anatomy it resembles a sympathetic ganglion. Its cells, like those of the sympathetic, are multipolar, with axis-cylinder and other numerous prolongations. Each nerve-cell is surrounded by a fibrous investment, which is regarded as the termination of the fibers of the oculo-motor nerve. Thus the pupillary and ciliary muscles are indirectly acted upon by the oculo-motor.

Stevens (50), after a thorough investigation of the relation between accommodation and convergence, has come to conclusions quite at variance with those generally accepted. He holds (1) that there is no essential relation between the two functions, the connection existing incidentally and as the result of habitual association. (2) The proportion of cases of convergent strabismus associated with hypermetropia, and divergent strabismus associated with myopia, has been exaggerated. (3) The cases of strabismus which are relieved by convex or concave spherical glasses are cases of hypertropia or hyperphoria, and the relief obtained is largely due to their action as vertical prisms. (4) His observations have led him to believe that excessive accommodation does not directly cause convergent strabismus.

Tscherning (19), in speaking of the mechanism of accommodation, said that his experiments had demonstrated that the increase

of refraction of the eye during accommodation diminishes toward the periphery. At a distance from the axis of 2.5 millimeters the accommodation is only one-half of that at the center. This is due to the fact that the anterior surface of the lens, during accommodation, becomes pointed. The same change of the lens may be produced in animals by traction on the ciliary zone.

Chibret confirmed the theory of Tscherning.

### PATHOLOGICAL ANATOMY.

Dimmer (9) called attention to the fact that in albuminuric retinitis the degenerative changes were greatest in extent and intensity in the macular region, because the conditions are here the most unfavorable for the nutrition of the retina.

Franke (11) gave a most interesting and instructive demonstration, microscopically, of the mechanism by which perforating wounds of the sclera heal.

Lapersonne (12) exhibited microscopic preparations of an orbital cyst with a microphthalmic eyeball, the walls of which were a well-developed but degenerated retina.

### ETIOLOGY.

Bull (21) regarded pressure of the lids upon the cornea as an important factor in causing certain forms of ocular fatigue, which he calls tarsal asthenopia, and which may be experienced by many persons on reading in bed.

Savage opposed this explanation of the asthenopia caused by reading in the recumbent posture, and referred it to the excessive work which such a position brings upon the inferior recti and superior obliques.

Burnett had found, some years ago, that pressure of the lids caused an astigmatism which he was not able to correct by any cylindrical lens, and that the changes by lid-pressure produced marked changes of the cornea-curve, as shown by the ophthalmometer.

Power cited a case in which, after a blepharoplasty, the new lid so caused increased pressure on the cornea as to produce a high degree of astigmatism.

Menacho (22) reported a case of double optic neuritis occurring in a young girl two weeks after the onset of catarrhal tonsilitis. She was totally blind and remained so for two days, when the sight promptly returned after the excision of both tonsils, and within a month she saw as well as ever. He looked upon the case as reflex

in character, the reflex action passing through the glosso-pharyngeal and sympathetic nerves by way of the pharyngeal plexus.

Borthen (37) exhibited a series of photographs illustrating the effects of leprosy upon the eyes.

Nieden (42) reported a case of sympathetic ophthalmia following choroidal sarcoma. The sarcoma contained cocci, both singly and in groups.

Deutschmann, in the discussion, said he had made a microscopical examination of the eyeball and optic nerve, and had found microörganisms both in the immediate neighborhood of the tumor and in the sheath of the optic nerve. He thought this would sustain the diagnosis of a "migratory" inflammation.

### DISEASES.

Abadie (15) described chorio-retinitis in a clear and systematic manner. He presented very little that was new. He emphasized the disproportion which often exists between the apparent lesions as seen by the ophthalmoscope and the functional disturbances of vision, the former being prominent while the vision is nearly unaffected in some, and in others the reverse. He considered the best treatment to be hypodermic injections of bichloride of mercury and peptonate or cyanide of mercury. In rebellious forms he had found it advantageous to combine with it subconjunctival injections of one or two drops of 1 to 1000 solution of bichloride mercury. He protested earnestly against the indiscriminate use of iodide of potassium.

Deutschmann made some strictures on the paper and favored subconjunctival injections in syphilitic cases. He had also obtained good results from iodide of potassium.

Panas, while not sharing the author's opinion as to the absolute inefficiency and disastrous results of iodide of potassium, agreed with him perfectly as to the superiority of the mercurial treatment.

Gunn (16) called attention to various lines and folds which radiate from the macula in cases of edema of the retina, whether from chorio-retinitis, anemia, retinal thrombosis or other conditions. These folds often remain after the disappearance of the edema and inflammation.

Thompson, of Indianapolis, had seen many cases of the kind, but they were found, in the vast majority of cases, in young women from 19 to 35 years of age.

Benson (17) reported a case of recurrent, temporary, visual obscuration in a seaman, who was a great smoker and who had a history of malaria and acute rheumatism. He had had these attacks for four years, sometimes the obscuration being total and sometimes in a single section of the visual field, and they would last from two to five minutes. The left eye was the one generally affected. During an obscuration, the ophthalmoscope showed "total bloodlessness of part of the retina, the anemic part changing in position." He believed the attacks to be due to spasm of one or more branches of the central retinal artery.

Noyes added a case of total blindness which lasted twenty-four hours, and in which the retinal arteries were wholly empty and the nerve extremely pale. Inhalations of nitrite of amyl relieved the condition.

Thompson thought that ophthalmic migraine might be but one remove from the condition described.

Clark (27) described two cases of cyst of the iris, one of which was congenital and the other developed without traumatism.

Bronner (40) reported a case of lymphomata of all four eyelids in a man 52 years of age. He saw him first in 1885, when there was found an elastic, elongated swelling of the left lower lid over which the skin was normal and freely movable. This tumor was removed and did not recur in three years. Then the four lids were found to be enlarged, and there was also a tumor of the right hard palate and the right submaxillary gland. Iodide of potassium and mercurial inunctions were ordered, but the tumors increased in size. In 1890 and 1891, Dr. Teale removed those in both lower lids. In 1891, fifteen minims of liquor arsenicalis and five minims of tincture of opium were given three times a day and in two or three weeks all the tumors had diminished in size. As soon as the arsenic was discontinued, the tumors began to increase, but disappeared again as soon as the medicine was resumed. Microscopic preparations showed the growths to be true lymphoma.

Sauvineau (46) handed in a paper to the congress describing a clinical type of ocular paralysis, in which there exists a paralysis of the movements of the eyes up and down and of convergence, while the movements from side to side are normally preserved. This form of paralysis, which was described by Parinaud in 1883, may begin suddenly and persist indefinitely without change. The lesions are probably seated in the supra-nuclear centers of coördi-

nation (subependymal grey substance of the quadrigeminal bodies). He had proved in 1892 that a lesion here produces paralysis of different associated and conjugate movements of the eyes, constituting a variety of ophthalmoplegia—supra-nuclear ophthalmoplegia. These paralyses are, therefore, always binocular. The diplopia, which is frequently present, and which when it exists offers nothing characteristic, has only a secondary importance in these forms of central paralysis.

Risley (48) read a most interesting paper giving the results of extended observation and study of ocular inequilibrium. He said there were two groups of anomalies of ocular equilibrium: Congenital anomalies of the eyes, and anomalies of the muscular apparatus. He desired to call attention only to the group in which simple vision is maintained by a constant tension of the eye which suffers from the anomaly. In most cases the correction requisite for the relative insufficiency should be effected gradually and progressively and in such a manner that the patient in the meantime learns to use his convergence. In absolute insufficiency the only remedy is tenotomy or muscular advancement.

(The next and final installment of this report will embody the most interesting part of the proceedings of the congress—namely, subjects pertaining to ocular therapeutics, both medical and surgical.—A. A. H.)

*Errata.*—Page 299 (Dec. No.), line eleventh from top, for 1880 read 1888.

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## BUFFALO ACADEMY OF MEDICINE—SURGICAL SECTION.

Reported by E. J. GILRAY, M. D., Secretary.

The regular monthly meeting of the Surgical Section of the Academy of Medicine was held at the Academy parlors, November 6, 1894, Dr. Hartwig presiding. Present—Drs. Grover Wende, Van Peyma, Rochester, Mynter, Shroetter, Horace Clark, Cott, Grosvenor, Hinkel, Rogers, Hubbell, Krauss, Bennett.

Dr. Gilray exhibited a case of syphilis of the throat.

Dr. Cott read a paper on Surgery of the Accessory Sinuses (page 321 of the Journal).

Dr. Horace Clark, in opening the discussion, thought that surgery of the accessory sinuses was the most difficult in the field

of nasal surgery. The surgical treatment of diseases of the ethmoidal and sphenoidal sinuses was almost impossible, being both difficult and dangerous. He thought that differential diagnosis between ethmoidal and sphenoidal disease could be made more easily from symptoms than from location of pus. The removal of hypertrophic tissue and polypi is not necessary in treatment. He thought the introduction of a tube through the tooth cavity was unnecessary when an opening could be made through the nasal wall.

Dr. Mynter exhibited some new drills for opening into the antrum of Highmore through the tooth cavity.

Dr. Hinkel: The treatment of the accessory sinuses may be divided into the treatment of the antrum and the other three sinuses. He could not agree with Dr. Clark's statement that ethmoidal disease was rare. From private statistics, since 1889, he has had thirty cases of disease of the antrum. Of these, twenty-one were chronic and nine were acute. In the twenty-one chronic there were polypi in ten cases; in the remaining eleven there were carious teeth in seven. These thirty cases comprise about two per cent. of all his cases. Of ethmoidal disease, during the same length of time, he had seen nineteen cases, of which fifteen were chronic and four acute. Of the fifteen chronic cases there were polypi in eight. The percentage of ethmoidal disease, therefore, in his practice was about 1.2 per cent. Of sphenoidal disease he had suspected three cases. Of frontal abscess he had seen two cases. He did not think it so difficult to open into the sphenoidal and ethmoidal cells. In ethmoidal disease he removes the anterior end of the middle turbinated body; then, by means of a curette and drill, breaks up the cells and gives fairly good drainage. The results are not always successful. He never had to perform an operation in frontal abscess.

Secure a large opening in antral disease for drainage. Recent cases of antral abscess are very amenable to treatment. If a tooth is at all sensitive, he believes in sacrificing the tooth, then drilling and draining through the tooth cavity. It is true the treatment of the accessory sinuses is not yet satisfactory. The tendency should be for larger openings and bolder surgery.

Dr. Cott, in reply to Dr. Clark about location of pus, had spoken about it after mentioning other symptoms. He is positive that many cases of sphenoidal and ethmoidal disease do not get well.

Dr. Grover Wende presented a short paper on An Unusual Case of Herpes.

Dr. Clark reported a case of primary tuberculosis of the fauces.

The meeting adjourned at 10.30 P. M.

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# Selection.

Kidney of Pregnancy.—Tranteroth (*British Medical Journal*) finds that in about half the cases of pregnancy in healthy women, primiparæ or otherwise, a trifling amount of albuminuria is to be detected in the second half of pregnancy. In a minority of cases this symptom, if not due to renal changes; in the majority it represents a special morbid condition, best termed "the kidney of pregnancy." As a rule this condition involves no symptoms besides changes in the kidney. Eclampsia and edema are rare. The pregnancy kidney never changes into the kidney of any chronic form of nephritis. There is no true nephritis of pregnancy. Albuminuria is the rule during labor, especially in primiparæ, and casts (usually hyaline) are to be found in almost a third of the cases. In the albuminuria of pregnancy casts are much rarer. The albuminuria of labor is most marked during the period of dilatation and disappears rapidly during childbed, except when there is fever; later on towards the second week, albuminuria usually indicates catarrh of the lower part of the urinary tract. The albuminuria of pregnancy and labor does not render chloroform dangerous. Renal disease, existing before pregnancy, is greatly aggravated by that condition, often ending in death of the ovum and abortion, after which the disease abates more or less. The causes of pregnancy kidney are the increase of intra-abdominal pressure, changes in the nutrition of the kidney brought about by the altered condition of the blood, and in special cases obstruction of the left ovarian vein which joins the left renal, and compression of the ureter by the fetal head. The last two causes apply to the kidney of labor (*Geburtsniere*), where also septic changes from pieces of fetal appendages play a part. The degree of the changes which make up the kidney of pregnancy depends on the resisting power of that organ in the individual patient.—*Maryland Medical Journal.—Kansas Medical Journal.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. JANUARY, 1895. No. 6.

## A NATIONAL PUBLIC HEALTH ESTABLISHMENT.

THE propriety of placing the supervision of the public health in the hands of the general government has been discussed with much freedom of late, both in the columns of the professional and lay press. Though the JOURNAL has not taken an active part in the discussion, it has not been, nor is it, indifferent to the subject. We recognize the importance of placing the control of public health problems in the hands of national authority. Moreover, we are of the opinion that such authority should be vested in a cabinet officer appointed to preside over a department of health. There is every argument in favor of such a plan. Foreign governments have adopted it. Powers of much less importance than the United States create ministers of health who preside over a department.

Here in the United States we do not hesitate to create a department of justice with an attorney-general at its head and subordinate attorneys scattered throughout the several districts and who are responsible to the head of the department at Washington. Then, too, there is a supreme court with all its necessary judges, clerks, attorneys, solicitors and other officers. All this machinery is necessary to properly administer the law department of the government.

Why should not the paramount questions pertaining to public health be committed to a similar department presided over by a minister who is an educated physician and an expert in public sanitation?

Is there not a greater reason why the general government should protect health and life than for it to guard its legal interests with such scrupulous care? The economics of the one are quite as

essential to progression and improvement as the other, and in our opinion even more so.

In this connection we desire to support the recommendation of the President in his recent message to Congress, wherein he suggests the establishment of a national board of health, or of a national health officer, to control matters pertaining to the protection of the country against epidemic, infectious and pestilential disease.

If such an office or board should be created, it would be a long stride in the direction which we advocate. It is not, to be sure, as completely planned as we could wish, but we shall give such a proposition, if it takes the form of a bill before Congress, our cordial commendation.

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## THE CARE OF THE POOR.

One of the most important questions relating to health economics in a great city like Buffalo is that of properly caring for its poor. It is entirely within the province of physicians and medical magazines to discuss this subject in all seriousness as one closely allied to the great problem of preventive medicine.

If the highest function of prevention is exercised, it must be done through channels that relate to the health of the poor. Disease can be prevented in a great measure by maintenance of nutrition, warmth and cleanliness. It is better to prevent sickness than to cure it. This aphorism holds good viewed from the most severe standpoint of money economics.

There is no surer way to breed disease than through the avenues of starvation and nakedness. Fuel, food and clothing are great sanitary allies and should be dealt out with a liberal hand as preventive measures. This applies equally to public and private charity.

Let it not be understood that we advocate recklessness in giving through either of these channels. On the contrary, it should be done with the greatest circumspection.

The individual pauper is a fellow-man suffering from social laws for which he is not responsible, and is, therefore, entitled to the kindest consideration through organized charity. The public pauper is the ward of the great body politic and his guardians should be compelled to protect him if they do not do it willingly.

Our argument is briefly this : that in times of financial stringency like the present, when the number of the poor is extraordinarily great, every effort should be put forth to care for them in an adequate manner with a view to the prevention of sickness and death. No city with the wealth of Buffalo can afford the reputation of an increased sickness or death-rate arising from neglect. Every avenue of charity should be drawn upon to the limit of its ability. Wealthy and well-to-do citizens should sustain the charity organization society with liberal hands. The present appeal of this society to such should not go unheeded.

Finally, the municipal authorities, executive and legislative, should put forth the utmost exertion and administer their functions with even a strained liberality, with a view to employing laboring men and women in order to prevent distress and thus sickness and death.

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## ECHOES OF THE HOT SPRINGS MEETING.

The Journal has received the following notes, which explain themselves and to which we gladly give space :

Hot Springs, Ark., Nov. 30, 1894.

*Dr. W. W. Potter, Editor, Buffalo, N. Y.:*

Dear Doctor—I beg space in the valuable columns of your journal to thank the doctors, their wives and friends for the beautiful present they so generously remembered me with. Yours truly,

MRS. LYMAN T. HAY.

The acknowledgment is as follows :

On November 23d the wheels and flying sparks took from me the most enthusiastic and charming assembly of people it has ever been my good fortune to know, and after many miles lay between us I received an exquisite token—a circular pin, of richest gold, with a diamond in the center. Its rays showed me plainly the brilliancy of the givers. I do not thank them *four or five times*, but four or five million times.

Yours appreciatively,

LOTAWANNA F. HAY.

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The Hon. William H. Martin, of Hot Springs, made one of the cleverest addresses in welcoming the Mississippi Valley Medical Association to that city to which we ever listened. Seldom does it fall to the lot of a layman and particularly a lawyer to address a company of doctors without laying himself open to criticism in

some particular. But Mr. Martin in his address made no mistake. He captured his audience at the outset and held it to the end.

We wish we had space for the address in full, but can only print his closing sentences, which form a peroration of exceptional merit and one that deserves preservation in the memory of all physisians.

I am reminded, Mr. President, that my office is to bid you welcome to Hot Springs, and the welcome that I voice will surely be exemplified by cordial treatment during your stay. Just what necessity there may be for extending a formal welcome to our friend, the doctor, I do not clearly see, for if there be a man in the wide world who is welcome at all times and places, whether his visit be professional, or social it is he. It is so at every stage of life. In the hour of tribulation that precedes our advent into this world of beauty, of brightness, and of love, when more than one life lies trembling in the hands of fate, it is into the face of our good friend the doctor, that we all look for comfort, and whose expression will stamp its impress upon our own.

Or, if it be when life's fitful fever is over, and the sands of time have run their course, his kindly face is with us still, and his office is at once to administer relief to the dying, and comfort to those who remain.

God bless the educated, kind-hearted, sensible doctor! May the judgment pronounced upon his life's work be as welcome to him as his kindly presence always is to us.

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The railroad facilities to and from Hot Springs were exceptionally good, as we mentioned in our December issue. Besides the efforts of Col. Townsend, of the Iron Mountain Route, it should not be forgotten that Mr. W. F. Snyder, general agent of the Big Four at St. Louis, was especially active in providing for the comfort of the travelers from the East.

It does not often fall to the lot of a great railway to be represented by a more courteous official than Col. Snyder proved to be. Under his keen and watchful eye no detail of comfort was omitted, and everything that could contribute to safe and rapid transit was provided. It is a pleasure to ride over such a route as the Big Four.

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Among other interesting features was the action of the association on the recommendations contained in the president's address. The ethical question was disposed of as follows: . . . . . VII. This association believes that in the proper education of physicians by adequate preliminary training, a medical college curricu-

lum of four years and a final examination for license by the state lies a true solution of many, if not all the much controverted questions of ethics; and that in the present day a further agitation of these questions by debate on the floor of societies met together for scientific advancement is unwise and injudicious. . . .

The above recorded action is respectfully commended to the notice of the American Medical Association as a model for its future guidance.

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One of the pleasant episodes of the convention occurred during the annual banquet which was held on Thursday evening, November 22d, at the Park Hotel. During the midst of the speech-making, when everything was at high water mark, under the masterly superintendence of Dr. I. N. Love, that prince of toast-masters, he called a halt and for a moment expectation stood agog wondering what was going to happen.

Taking advantage of the momentary silence, Dr. W. H. Daly, of Pittsburg, in an appropriate speech, presented to Col. H. C. Townsend, general agent of the Iron Mountain Route, who was personally conducting the tour, a beautiful jewelled scarf pin. A like office was performed for Col. Charles E. Ware, general advertising agent of the Missouri Pacific Railway, by Dr. Love. The tourists contributed the money for these two beautiful jewels, and they were procured in St. Louis by John W. Cox, Esq., vice-president of the Antikamnia Chemical Co., whose kind offices in that regard the contributors desire to acknowledge.

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## TOPICS OF THE MONTH.

Mr. Lawson Tait, whose critique on the germ theory of disease was published in the December issue of the Journal, requests us to say that the mortality of his perineal operations should be *four* instead of *two*, as stated on page 277. Two fatal cases were overlooked in the preparation of the paper, for which omission Mr. Tait desires to apologize to our readers.

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Dr. A. Conan Doyle, the distinguished literateur, has recently spent two months in the United States, during which time he has visited several cities of importance. He seems to have been more impressed with Philadelphia than with any other American city.

On the evening before his departure for home he was tendered a farewell dinner by the Aldine Club of New York, which had also similarly entertained him on his arrival in this country.

Hamilton Mable, as president of the club, presided and introduced the guest of the evening, whose presence, he said, represented an international affair, because Dr. Doyle was an Irishman by blood, was born in Scotland and spoke English.

Dr. Doyle's remarks were inclined to be of a retrospective character, and, judged from them, his American retrospect is a sincerely pleasant one. He said he felt like a hurdler who had taken all the obstacles, and they were represented by the East, the West, the North and the South of this broad land, but the greensward between would always appear to him as the Aldine Club. It would require the quiet of his study to separate the powerful impressions he had received while in this country. At present they were only a chaotic mass. The panorama which was whirling in his mind contained visions of the Hudson, with its chain of old Dutch towns ; a delightful glimpse of the industry of the manufacturing West, and another of Chicago, which reminded him of a half-grown boy who was always outgrowing his clothes. A view of staid old Philadelphia brought back placid memories of rural England, and so he went on describing briefly all the cities he had visited, and ended by saying that when he left he should leave a part of his heart behind.

Sir Henry Cunningham, the English author, paid a loving tribute to the memory of James Russell Lowell, and other speeches were made by "Bill" Nye, F. Hopkinson Smith, David Christie Murray, the Rev. Dr. Henry Van Dyke, Thomas Nelson Page, Frank R. Lawrence, Ripley Hitchcock, Captain J. T. J. H. Doyle, John Burroughs, Noah Brooks, William Cary and others.

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It is proposed that a testimonial, to take the form of a portrait, shall be presented to Sir Joseph Lister, as a manifestation of the esteem in which he is held by his former colleagues and pupils. His recent retirement from active hospital and teaching work has been thought an appropriate occasion for the presentation. Subscriptions have been limited to two guineas (about $10.23) and it is hoped that sufficient funds will be collected to permit the presentation of some memento of the occasion to each subscriber.

Subscriptions may be sent to J. Frederick W. Silk, honorary secretary, 29 Weymouth street, Portland place, London W., Eng-

land, or to one or other of the following gentlemen, who have kindly consented to act as treasurers, namely—Dr. James Finlayson, 4 Woodside place, Glasgow, Scotland ; Professor Chiene, 26 Charlotte square, Edinburgh, Scotland ; Professor William Rose, 17 Harley street, London W., England ; Dr. Malloch, 124 James street south, Hamilton, Ont., or J. Stewart, M. B., 37 South street, Halifax, Nova Scotia.

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The Charity Organization Society, of Buffalo, makes an earnest appeal to our citizens for funds to meet its present necessities. It needs a permanent addition of, at least, $3,000 to its annual subscription list. It also needs to raise $5,000 extra to pay off its accumulated indebtedness. The extraordinary demands made upon the resources of the society, owing to the financial stringency of the past year and a half, has made this appeal necessary.

We trust the good people of Buffalo will unite in helping to raise these funds at once. In another place in this issue of the Journal we have presented cogent reasons in addition to those usually given why this should be done. Subscriptions should be sent to Mr. Frederick Almy, secretary and treasurer.

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The propriety of abolishing the evening office hours of physicians is being agitated by some of our contemporaries. We quite agree with that spirit which would release the doctor from the thralldom of rigidly keeping evening hours at his office, when he could employ the time to better advantage in study or in a social manner.

In the few instances where it is impossible for patients to attend in the day-time, special evening appointments may be made ; but we are quite of the opinion that the abolition of evening office hours in general would result in improvement to both physicians and patients.

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Georgia is struggling over the question of a medical practice act, which, it is to be hoped, will become a law during the present session of the state legislature. The speaker's vote was necessary to carry it in the house, but according to the *Atlanta Medical and Surgical Journal* it is believed that there will be very little opposition to it in the senate. The time is not far off when every state in the Union will enjoy the protection which a separate medical examining and licensing board affords.

The New York Medical College, which began its existence in 1850 and was discontinued in 1864, boasted of many distinguished alumni. In the list of graduates lately published may be found the names of Alexander B. Mott, Fessenden N. Otis, John Byrne, Edward S. Dunster and Alexander Hutchins.

A sketch of this college was prepared by the late Edwin Hamilton Davis, M. D., and has been published by his widow for the purpose of making the history of the college complete and publishing to the world its legally graduated alumni.

Every alumnus of this institution will be interested in reading this well-prepared little brochure.

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The attention of our readers is invited to the excellent report of the eighth international ophthalmological congress held in Edinburgh, August 7-11, 1894, prepared by Dr. A. A. Hubbell, of Buffalo. The publication of the proceedings was commenced in the December number, is carried on in this issue and will be continued in succeeding months until completed.

The editor of the *Ophthalmic Record* (Nashville, Tenn.,) announces in a late issue that it has secured the services of Dr. Hubbell to report the proceedings of this congress for its pages; whereas, as a matter of fact, Dr. Hubbell's report is made exclusively for the Journal, and by permission will be printed in the *Record.*

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Dr. Ernest Wende, Health Commissioner of Buffalo, has asked the Common Council to appropriate $2,700 to enable him to employ two bacteriologists, whose duty it shall be to aid in the manufacture of antitoxin and to investigate infectious diseases referred to them through the Health Department.

This reasonable request should be granted. Deaths are constantly occurring from diphtheria and other communicable diseases that are preventable. New York City has appropriated $75,000 to enable its health department to manufacture antitoxin, which is more than double the sum that the entire health department in Buffalo costs each year.

There is no excuse for delay in this matter. Infectious communicable diseases that are preventable should be restrained by every known method. Every element whose usefulness has been demonstrated by modern scientific research should be employed to

prevent the spread of such diseases as diphtheria, consumption, typhoid fever and the like. Buffalo with upwards of 300,000 inhabitants cannot afford to take less than the most advanced stand in this matter.

Dr. Wende, as head of the Health Department, is asking for very little and he should get it promptly.

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The treatment of insomnia is an interesting subject to every physician, and any methods looking to its relief always attract attention. The Medico-Chirurgical Faculty of Maryland lately had the subject under discussion, in which Dr. E. N. Brush, formerly of Buffalo, but now superintendent of the Sheppard Hospital for the Insane, Towson, Md., took an active part. He called attention to the evils that arise from the constant administration of drugs, especially where they are resorted to independently of the advice of a physician.

Dr. Brush is a strong advocate of natural methods to invoke sleep in cases of physical and nervous exhaustion, such as attention to the skin and other emunctories, massage, baths and the ingestion of proper food.

This is most excellent advice and is especially timely during a period when so many hypnotic drugs are being manufactured and sold with so much recklessness as to dismay almost every regular practitioner of medicine.

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The report of the Buffalo Free Kindergarten Association, May, 1893, to September, 1894, has been issued. It makes a creditable showing of excellent work done in spite of the limited means at command. There are enrolled over 600 children, between the ages of three and seven, in the ten kindergartens of the association.

In this large city the association has less than two hundred members, though the annual dues are only $5.00. An increased membership is necessary in order to secure the continuance and extension of the work. This is one way to prevent sickness and reduce the death-rate, for everything which contributes to cleanliness and mental improvement serves to prevent squalor and disease.

No more tender appeal could be made to humanity than this one on behalf of the poor children of the city. Those who desire

to become members may send their fee to Mr. Worthington C. Miner, treasurer, or to Mr. John G. Milburn, president.

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The Postmaster-General, in his last annual report, pays particular attention to the abuses connected with second-class mail matter. These abuses consist chiefly of two kinds—namely, one where books, falsely purporting to be periodicals such as serial paper-covered books, are posted in this class by great publishing houses; the other in the mailing of sample copies.

There is no doubt that this latter evil is a serious one, and we wish the privilege of mailing sample copies at pound rates would be denied. The present practice, as the Postmaster-General says, offers a premium to worthless advertising sheets, and if it were discontinued the field for journalistic enterprise would be left open to legitimate publications, which, depending on subscriptions as well as on advertising, would go to those only who cared to take them on their merits.

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## Personal.

Dr. Edmund M. Pond has opened a private hospital at No. 20 Nichols street, Rutland, Vt. Miss Janet R. S. Sheldon is associated with Dr. Pond in the conduct of the hospital.

The building, constructed but a few years ago at a cost of $30,000, is beautifully situated and is surrounded by three acres of land. Large, airy wards and private rooms are newly furnished and will accommodate thirty-five patients. A modern aseptic operating room, with improved tables, sterilizers and instruments, is connected with the hospital. Trained hospital nurses are in constant attendance, and, if desired, can be furnished for cases outside of the hospital. One charity case at a time will be taken free of all charges.

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Dr. William P. Spratling, a graduate of the College of Physicians and Surgeons of Baltimore of the class of 1886, according to the *Maryland Medical Journal*, has been elected superintendent of the Craig Colony for Epileptics, in the State of New York. Dr. Spratling will visit the famous Colony for Epileptics at Bielefeld, Germany, before entering upon his duties at Craig Colony.

Dr. E. J. Gilray, of Buffalo, has been appointed house surgeon and superintendent of the Erie County Hospital, vice Dr. J. Haberstro, resigned.

Dr. Gilray was graduated from the University of Buffalo five years ago. He confined himself to hospital work for several years He was chief medical interne at the Harper Hospital in Detroit for some time.

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Dr. Willis P. King, of Kansas City, who has been in poor health for some months, is reported to be improving. He will spend the winter in Southern Texas, in the full expectation that prolonged rest will restore him to his wonted vigor. We join his many friends in the hope that this pleasant prospect may be fully realized.

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Dr. Henry Y. Grant, of Buffalo, was elected a member of the Ophthalmological Society of the United Kingdom of Great Britain and Ireland at a recent meeting. This is a merited distinction conferred upon our distinguished townsman, who is one of our eminent ophthalmologists.

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Dr. J. B. Murphy, of Chicago, has announced to the medical profession that henceforth his practice will be limited to surgery, operative gynecology and consultations. His offices are in the Venetian building.

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Dr. Clinton Cushing, of San Francisco, spent Thanksgiving Day in Buffalo, en route to New York, and thence to Europe. He was the guest of Dr. and Mrs. William Warren Potter, of Franklin street.

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## Obituary.

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Dr. Louis Alexander Bull, of Buffalo, died of diphtheria, at his residence, No. 665 West Ferry street, on Friday, November 30, 1894, aged thirty-seven years. He was taken ill six days before his death, and the community was shocked to learn of his demise almost before it had heard of his illness.

Dr. Bull was well known as a specialist in laryngology, having built up a successful practice in that branch of medicine. At the

time of his death he was a member of the Buffalo Homeopathic Medical Society. At one time he was president of this body. He was on the consulting staff of the Wilcox Private Hospital, and was also on the staffs of the Erie County Hospital and the Homeopathic Hospital. Dr. Bull was a member of the Civil Service Commission, and was one of the originators as well as the secretary of the Twenty-fourth Ward Good Government Club. He was also the treasurer of the Buffalo Society of Natural Sciences. Dr. Bull was a prominent member of the Church of Our Father, being one of the trustees. He was also secretary of the literary society of the church.

He was the only son of Dr. Alexander T. Bull, of this city, who, together with the surviving widow and children and a sister, receives the sympathy of a wide circle of friends in this sadly sudden affliction.

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Dr. F. L. Sim, editor of the *Memphis Medical Monthly*, died at his home, in Memphis, Tenn., on Tuesday, November 27, 1894, aged sixty years. He was also professor of the principles and practice of medicine in the Memphis Hospital Medical College, and was executive officer of the faculty. Dr. Sim was one of the leading physicians of the South and will be greatly missed by a large circle of friends. Mrs. Sim and a niece survive. His health had been failing for some months past, but the end came quickly and almost unexpectedly.

His colleagues in the faculty and various societies have adopted suitable memorials and the medical journals are paying tribute to his memory.

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## Society Meetings.

The Association of Erie Railway Surgeons will hold its annual meeting at the Tod House, Youngstown, O., on Tuesday, January 8, 1895, under the presidency of Dr. C. B. Kibler, of Corry, Pa. Dr. C. M. Daniels, of Buffalo, Dr. Henry Flood, of Elmira, and Dr. C. S. Parkhill, of Hornellsville, are among those from the State of New York who will read papers.

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The Medical Society of the County of Erie will hold its annual meeting in the parlors of the Buffalo Academy of Medicine on

Tuesday, January 8, 1895, at 10 o'clock A. M., under the presidency of Dr. W. H. Gail, of East Aurora. An interesting program is preparing.

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THE Medical Society of the State of New York will hold its eighty-ninth annual session at the City Hall, Albany, beginning Tuesday, February 5, 1895, under the presidency of Dr. George Henry Fox, of New York.

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THE Southern Surgical and Gynecological Association scored another success at its Charleston meeting, held on November 13, 14, 15, 1894, under the presidency of Dr. Cornelius Kollock, of Cheraw, S. C. Both the scientific and social features of the meeting were all that could be desired. The scientific work is being catalogued in the journals and merits careful reading. In the course of the president's address he remarked as follows:

> It is not surprising that this association should, from its organization and management, prove a success. It has been presided over in the past by men of influence and ability, fitted to shine in any medical circle and to adorn and give dignity to any reunion. Yet not to its presiding officers alone has its success been due. Its founders are earnest men, but there is one among them especially earnest, having its welfare much at heart; a hard and willing worker, an excellent operator, well known by reputation to the medical men of the South and of the North—striving for the advancement of the South, Southern in sympathy, yet catholic in spirit. This man is Dr. W. E. B. Davis, of Birmingham, Ala., the secretary of the association.

The following are officers-elect for the ensuing year: President, Dr. Louis McLane Tiffany, of Baltimore; First Vice-President, Dr. Ernest S. Lewis, of New Orleans; Second Vice-President, Dr. Manning Simons, of Charleston; Secretary, Dr. W. E. B. Davis, of Birmingham; Treasurer, Dr. Richard Douglas, of Nashville. Executive Council—Drs. George J. Engelmann, Wm. D. Haggard, Bedford Brown, Lewis S. McMurtry.

The next session of the association will be held in Washington City, beginning on the second Tuesday of November, 1895.

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THE editors of *Mathews's Medical Quarterly* desire to obtain the names of all reputable surgeons in the United States, who limit their practice to diseases of the rectum. Address Editors of *Mathews's Medical Quarterly*, P. O. Box 434, Louisville, Ky.

# Book Reviews.

YOUNG'S ORTHOPEDIC SURGERY. A Manual of Orthopedic Surgery for Students and Practitioners. By JAMES K. YOUNG, M. D., Instructor in Orthopedic Surgery, University of Pennsylvania, Philadelphia. In one octavo volume of 446 pages, with 285 illustrations. Cloth, $4.00; leather, $5.00. Philadelphia: Lea Brothers & Co. 1894.

There is no more fascinating department of surgery than that which has to deal with deformities of the human body. Its attractiveness is due in part to the fact that results are often so satisfactory, and in other part because when a surgeon has been instrumental in wresting a dependent and deformed person from suffering and helplessness and restored him to usefulness and self-support, he feels that he has contributed something to the sum of human happiness.

This author is one of the younger orthopedic surgeons who has not appeared before in this rôle, hence his work will challenge criticism, perhaps, to an unusual degree. Happily, however, it will stand the test! Young begins his work in a straightforward manner, wasting but few words in an introduction, gives a brief classification of the subject and then starts out to discuss its most important subdivision—namely, Pott's disease of the spine. The author's pathology is that which is accepted by all orthopedic surgeons of the present day; his symptomatology is clear and well classified and his treatment the most modern. He gives all the varieties of jackets, corsets and supports, both in illustration and description, and altogether writes a most satisfactory chapter on this trying disease.

The next most important malady is hip-joint disease. Young's definition of this is direct, positive and acceptable. He says hip-joint disease is a chronic tubercular lesion of the coxo-femoral articulation, beginning usually as an osteitis or synovitis and terminating in recovery, ankylosis or complete destruction of the joint. There is no misunderstanding this. The tubercular origin of this disease is well established. The author's description of the various methods of treatment applicable to the several stages is most satisfactory, and is well illustrated by numerous drawings and photographs. An interesting fact connected with the study of this subject is the observation of Bruns, quoted in another place, who states that 6 per cent. of patients under ten years of age who have been cured of hip disease, 9 per cent. of those between ten and twenty years, and 7 per cent. of those above twenty years of age succumb, eventually, to tuberculosis of other organs.

The next subject of importance is knee-joint disease, the white swelling of the older authors, but the chronic tubercular lesion of the present day. This is well described and admirably treated.

We come next in the order of importance to lateral curvature of the spine. This is a much more frequent affection than the average observer would believe, owing to the fact that deformities of this class are so easily concealed by a proper adjustment of the clothing. This is essentially a disease of the female sex, but in very young children the number of the two sexes affected is about equal. It is, by far, the most common of all orthopedic affections, and every general practitioner of medicine should familiarize himself with its diagnosis and management.

The infantile palsies are next dealt with in much detail, then rickets, knock-knee, bow legs and similar conditions are considered. Club-foot, one of the most important subjects connected with orthopedics, receives most painstaking treatment, over eighty pages being devoted to its consideration. Here is another study for the general practitioner, since it is he who sees these cases first and must be armed with the most practical advice, and must not hesitate to give it. It is a reflection on surgical science to see an adult in these days hobbling along the street with club-foot.

Many of the minor subjects dealt with in this useful treatise we have not touched upon, not because of their unimportance, but on account of limited space.

As a final remark we desire to state that this is one of the most useful of recent works in this department of surgery. It is essentially a work for the general practitioner, to remind him of his duties in the way of early diagnosis in deformities, and that he is to seek, early, the aid of a skilful orthopedic surgeon.

The illustrations in the volume are exceptionally fine and its mechanical execution is satisfactory in every detail.

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A Hand-Book of Medical Microscopy, for Students and General Practitioners, including chapters on Bacteriology, Neoplasms and Urinary Examinations. By James E. Reeves, M. D., author of A Practical Treatise on Enteric or Typhoid Fever. With a glossary and numerous illustrations (partly in colors). Price, $2.50, net. Pp. xv.—237. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894.

This little volume has been written from the standpoint of a general practitioner of more than forty years' active experience, who thinks he is well acquainted with the needs of his professional brethren. In the first chapter of this work the author shows the absolute need of every physician to possess a microscope and a good practical knowledge of microscopy, by citing cases in his practice where the diagnosis was only able to be made through a microscopical examination. The scope of the work is almost too broad for the original purpose, embracing as it does the technique of microscopy, histology, pathology, bacteriology, examination of drinking water and the like. The subjects treated are concisely and clearly written and help to introduce the beginner to the more elaborate treatises on the microscopical sciences.

The author wisely says, in his opening chapter, the time has now come when all progressive physicians and surgeons, general practitioners and specialists alike, must either themselves possess sufficient skill in microscopic technique or else be able to command the ready service of some accomplished microscopist and pathologist to do such necessary work for them.

The work teems with nicely executed illustrations and is an excellent book of its kind. W. C. K.

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FLINT'S PRACTICE OF MEDICINE. A Treatise on the Principles and Practice of Medicine. Designed for the use of Students and Practitioners of Medicine. By AUSTIN FLINT, M. D., LL. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in Bellevue Hospital Medical College, N. Y. New (seventh) edition, thoroughly revised by Frederick P. Henry, M. D., Professor of the Principles and Practice of Medicine in the Woman's Medical College of Pennsylvania, Philadelphia. In one octavo volume of 1143 pages, with illustrations. Cloth, $5.00; leather, $6.00. Philadelphia: Lea Brothers & Co. 1894.

Flint's Practice of Medicine has been known to the profession for nearly thirty years, and has been used as a text-book in most medical colleges for the greater part of this period. To supply the demand, six editions have already been exhausted, hence it is a treatise that needs no introduction to physicians.

Since the death of the distinguished author, eight years ago, many changes have taken place, especially in reference to the teaching of medicine, and it is one of the peculiarities of the present time that the novitiate will be satisfied with nothing that is not the latest, particularly with reference to text-books.

In reproducing such a work after so long an interval, it is important to incorporate such changes as have taken place in order to bring the work down to the present date so that it may compete with such text-books as have been lately issued.

To secure a proper editor to superintend such a revision was no mean task, and it is fortunate that the services of Dr. Henry could be obtained. That he is a clinical investigator, writer and teacher, fully equipped to do justice to his undertaking, is shown by his record in revising this edition of Flint's Practice. In its preparation he has omitted the section on general pathology, which is in keeping with modern works on practice. Separate chairs are now allotted to special and general pathology, and teachers in this important department publish separate treatises, hence the omission of this subject from works on practice is to be expected. In this case, the book is not materially reduced in size, for the editor has contributed nearly one hundred pages of new matter, comprising more than twenty distinct articles, besides numerous interpolations in every section of the book.

Dr. Henry's editions are, in the main, such as we might have expected from the author himself, had he been living. He is especially strong in reference to diseases of the stomach, where he

has introduced a radical departure from the methods of the author. He has also strengthened the department of therapeutics very materially, and most of the new topics introduced by the editor show the hand of a master.

It is probable that Flint's Practice will continue to enjoy the favor of both undergraduates and physicians for many years. It is the one work on the subject that has the right to be called classical, and so long as it keeps abreast of the progress of events, by new editions so ably edited as this one by Dr. Henry, there is no danger of its losing its place in the front rank of modern medical science.

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TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK. For the year 1894. Octavo, pp. 507. Published by the Society. 1894.

The annual volumes of the transactions of this society are eagerly sought by the members and by many others interested in the work of this ancient and honorable organization. The present volume is replete with interesting medical and surgical papers. The president, Dr. Herman Bendell, of Albany, chose for the subject of his anniversary address The Physician of Sacred History. This is a classic analysis of biblical history, which shows the great scholarship of the learned president.

A discussion on abdominal surgery, participated in by several distinguished men, both within and without the state, occupies the next eighty-five pages of the book. This, alone, is worth more than the price of the volume. Another discussion, on menstruation and its abnormalities, occupies thirty-seven pages, and another on diphtheria occupies fifty more pages of the book. The remainder of the work is filled with miscellaneous contributions from various sources, together with the usual list of members, including the county medical societies. An appendix containing the laws of New York of interest to the medical profession, enacted by the Legislature of 1894, and an index close the volume, which is one of the best the society has ever issued.

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HARE'S TEXT-BOOK OF PRACTICAL THERAPEUTICS. A Text-Book of Practical Therapeutics; with especial reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By HOBART ARMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. de Schweinitz, Edward Martin and Barton C. Hirst. New (fourth) edition, thoroughly revised and much enlarged. In one octavo volume of 740 pages. Cloth, $3.75; leather, $4.75. Philadelphia: Lea Brothers & Co. 1894.

When a book has passed through four editions in less than four years, there is very little to say about its popularity. The medical

public has already testified its appreciation of the work and no medical journal could prevent its progress if it would.

The JOURNAL has already spoken in terms of favor of the previous editions and has nothing but continued praise to offer for the one under consideration. Hare is a teacher of experience who knows how to impart knowledge to students in an impressive and lasting manner. He knows how to arrange a treatise in the most systematic manner, and with a view to the greatest economy of space and words. He knows how to keep progress with advancing science and to differentiate between the true and the false. He knows, moreover, when to stop—when his subject is finished—and to say that he has applied all these principles in the construction of this work is not to exaggerate a single fact nor to overstate the truth.

In this fourth edition the author has rewritten many of the articles on drugs, remedial measures, and diseases, and has added much practical information concerning the value of those new remedies that are really useful. The work has been made to conform to the new United States Pharmacopeia. It is equally valuable to the physician and undergraduate as an authority on therapeutics, which, in its broad sense, may be stated to be the application of therapeutical measures to the treatment of disease.

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TRANSACTIONS OF THE TEXAS STATE MEDICAL ASSOCIATION. Twenty-sixth annual session, Austin, Texas, April 24, 25, 26 and 27, 1894.

The improvement in the make-up of this volume over its predecessors is apparent. This not only applies to the mechanical appearance of the book, but also to the material that it contains. The minutes and discussions are stenographically reported and several fine illustrations embellish the book.

Among the many valuable papers that it contains, one by Dr. J. F. Y. Paine, of Galveston, on The Present Status of Symphysiotomy, deserves special mention.

The association occupies four days with its annual meeting and disposes of an enormous amount of work. It divides itself into nine sections, which are quite as many as a national or international congress should maintain.

Though there is a general improvement in this volume in most respects, there is retrogression in one—namely, it appears in paper covers this year instead of cloth.

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FIFTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS, for the year ending December 31, 1892. With an appendix containing the report on medical education and medical colleges. Revised to December 31, 1893. Springfield, Illinois: W. H. Rokker, State Printer and Binder. 1894.

The annual volumes published by the Illinois State Board of Health possess great interest, from the fact that this institution was the first in all the states to move in the direction of higher

medical education. By establishing certain standards and insisting upon them as prerequisites to the practice of medicine in the State of Illinois, it not only drove quacks and incompetent physicians out of that commonwealth, but it attracted the attention of other states that were compelled in self-defense, if not from principle, to adopt similar safeguards.

This volume contains a record of the standing of medical colleges in the United States and Canada, revised to September 30, 1893, together with the medical practice laws in force in the same for a corresponding period.

It is one of the most valuable books of reference in relation to medical education published, and every person interested in reform on this subject should obtain it.

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MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. By W. HALE WAITE, M. D., F. R. C. P., Physician to, and Lecturer on, Materia Medica and Therapeutics at Guy's Hospital, London ; Examiner in Materia Medica to the Conjoint Board of England, etc. Edited by Reynold W. Wilcox, M. A., M. D., LL. D., Professor of Clinical Medicine and Therapeutics at the New York Post-Graduate Medical School and Hospital ; Visiting Physician to St. Mark's Hospital, etc. Second American edition, thoroughly revised. Small 8vo, pp. 661. Price, $3.00. Philadelphia : P. Blakiston, Son & Company, 1012 Walnut street. 1894.

Notwithstanding the fact that many works on the subjects that this treatise embraces have appeared within the past few years, yet this one occupies a deserved place in the estimation of the American profession of medicine. It possesses the advantage of conciseness as to verbiage and completeness as to arrangement.

The American editor has done his part of the work with excellent judgment, ably seconding the author in adapting it to the necessities of medical men on this side of the Atlantic.

We regard it as one of the best reference books a student can consult, and it is also admirably adapted to the needs of the general practitioner of medicine.

It embraces the most modern ideas of materia medica and therapeutics and will easily take rank among the best of its class.

The second edition has been thoroughly revised and some of it has been entirely rewritten.

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THE MEDICAL REGISTER OF NEW YORK, NEW JERSEY AND CONNECTICUT. For the year commencing June 1, 1894. Published under the supervision of the New York Medico-Historical Society. JOHN SHRADY, M. D., Editor. Volume XXXII. Price, $2.10. New York : G. P. Putnam's Sons, 27 West Twenty-third street ; London, 24 Bedford street, Strand. 1894.

This register is of convenient size for reference, and will be found useful for physicians and pharmacists as well as for those

interested in such commercial pursuits as bring them in relation with either of these professions.

It, however, is imperfect as to omissions and other errors relating to Buffalo, that should be corrected in the next edition.

There is too much carelessness in the preparation of directories in general, and in our own city directory in particular, which, we presume, has been consulted in the preparation of this register.

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International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-urinary Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by Judson Daland, M. D., Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the University Hospital; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumptives. J. Mitchell Bruce, M. D. F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume II Fourth series. 1894. Royal 8vo, pp. xii.—363. Philadelphia: J. B. Lippincott Co. 1894.

The first lecture in this volume is by Professor Potain, of Paris, on The Maladies with which Typhoid Fever may be Confounded.

The Buffalo contributors are Dr. Charles G. Stockton on Anemia; Dr. Roswell Park on Reamputation of the Thigh, and Dr. M. D. Mann on Pessaries.

Among other interesting lectures we may mention one by Dr. J. Henry Carstens, of Detroit, on Vaginal Hysterectomy for Malignant Disease of the Uterus; one by Dr. John B. Hamilton, of Chicago, on Tuberculosis of the Hip-joint; and one by Dr. H. W. Longyear, of Detroit, on Vaginal Hysterectomy and Curettage of the Uterus.

A number of excellent illustrations serve to elucidate the text of several of the lectures published in this volume.

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Essentials of the Diseases of the Ear, arranged in the form of Questions and Answers. Prepared especially for Students of Medicine and Post-Graduate Students. By E. B. Gleason, S. B., M. D., Clinical Professor of Otology, Medico-Chirurgical College, Philadelphia; Surgeon in Charge of the Nose, Throat and Ear Department of the Northern Dispensary, Philadelphia. Saunders's Question Compends, No. 24. Price, $1.00. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The illustrations in this compend are well drawn and very clear and give substantial aid to an understanding of the text.

In studying the anatomy of the ear this book will be found valuable. So, too, with reference to the various manipulations of the otoscope and instruments connected with the treatment of diseases of the ear.

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A Manual of Human Physiology. Prepared with Special Reference to Students of Medicine. By Joseph H. Raymond, A. M., M. D., Professor of Physiology and Hygiene in the Long Island College Hospital, and Director of Physiology in the Hoagland Laboratory. Saunders's New Aid Series. Small 8vo, pp. 382. With 102 illustrations in text and four full-page colored plates. Price, $1.25 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The author of this book is an experienced teacher in physiology. Taking advantage of this experience he has condensed into a comparatively small compass the essentials of the study of human physiology and has set them forth in very acceptable form. This manual, with very little modification, would make an excellent text-book for use in our public schools.

It is quite true that under our present system of medical education there is only time for students to grasp the general principles of physiology, hence some such aid as this book furnishes becomes essential in student years.

It seems to us a great pity that more time and attention is not given to physiology in the collegiate courses. It is a department of medicine that lies at the very threshold of the healing art and should be taught equally as thoroughly as anatomy, while these two and chemistry should form the entire foundation of study to be pursued during the first year, to the exclusion of all other branches.

The method Dr. Raymond has adopted in the presentation of his subject is an excellent one, and his manual is commended to students of physiology.

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Syllabus of Lectures on Human Embryology. An Introduction to the Study of Obstetrics and Gynecology. For Medical Students and Practitioners. With a Glossary of Embryological Terms. By Walter Porter Manton, M. D., Professor of Clinical Gynecology and Lecturer on Obstetrics in the Detroit College of Medicine; Fellow of the Royal Microscopical Society, of the British Zoological Society, American Microscopical Society, etc., etc. Illustrated with Seventy (70) Outline Drawings and Photo-Engravings. Duodecimo, cloth, 126 pages, interleaved for adding notes and other illustrations, $1.25 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street. 1894.

The author of this syllabus is an experienced teacher, and he has given in this work an arrangement that he has followed in his lectures during the past ten years. The object of its publication, as stated in the preface, is to furnish students and practitioners of medicine an outline of the principal facts in human embryology,

leaving details and theories to be obtained in larger works and special monographs.

The book is arranged to be used in the class-room, the printed headings serving as a guide during the elaboration of the subject by the teacher, while notes of the lecture may be entered on the blank pages that are inserted. Foot notes have been added to facilitate search for further information on special subjects.

The illustrations are excellent, many of which are from specimens in the author's own collection.

We commend this as one of the best works of its kind extant.

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THE PRINCIPLES OF BACTERIOLOGY. A Practical Manual for Students and Physicians. By A. C. ABBOTT, M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania, Philadelphia. Second edition, enlarged and thoroughly revised. With ninety-four illustrations, of which seventeen are colored. Philadelphia: Lea Brothers & Co. 1894.

In the issue of the JOURNAL for April, 1892, there appeared a review of the first edition of this work, and reference was made to its many interesting features. Its success has been demonstrated by the appearance of this second edition, which is a great improvement on the first. The text has been doubled without even going into the details of bacteriology and the illustrations trebled. One happy feature of this edition is the appearance of colored illustrations, helping to show the exact appearance of the various bacilli as they appear stained under the microscope. An appendix is also given with a list of apparatus and materials required in a beginner's laboratory. W. C. K.

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TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION, Volume the Twelfth. Edited by DE FOREST WILLARD, M. D., Recorder of the Association. Philadelphia: Printed for the Association and for sale by William J. Dornan. 1894.

This volume contains the papers read at the last annual meeting of this excellent association. As usual, it is replete with interest. One of the episodes of the meeting was the presentation of a gavel made from the office chair of the late Dr. Samuel D. Gross, one of the founders of the association. The gift was made by Dr. J. Ewing Mears, the retiring president of the association, and a full-page half-tone engraving of the gavel appears in the book. Dr. W. W. Keen, of Philadelphia, presents an interesting paper on shoulder amputations, in which he reports four cases. In one of these there was amputation of the entire upper extremity, including the scapula and clavicle, and in three others there was amputation at the shoulder joint. The author presented the paper with especial reference to a discussion of the methods of controlling hemorrhage. It is an admirably prepared paper, contains nineteen illustrations, and is one of the most important contributions that has lately been made to shoulder amputations.

The book is full of instructive material that every surgeon will be interested in reading.

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The Sympathetic Nerve. Drawn from a dissection prepared by Byron Robinson, M. D., Chicago. 1894.

The author spent five years of labor in dissecting the sympathetic nerve for this plate. He states that the dissection from which the accompanying drawing was made was on a female cadaver about thirty years of age. The body was kept in alcohol for about ten months. The completed drawing is the result of one month's labor of an artist working daily under Dr. Robinson's supervision. He claims, therefore, that this representation is as close to nature as science and art are capable of reproducing. We think the claim is justified.

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## BOOKS RECEIVED.

A Compend of the Practice of Medicine. By David E. Hughes, M. D., Chief Resident Physician Philadelphia Hospital; Physician-in-Chief, Insane Department, Philadelphia Hospital, etc., etc. Fifth physicians' edition. Thoroughly revised and enlarged. Including a very complete section on skin diseases and a new section on mental diseases. Small 8vo; pp. viii.—568. Price, $2.50. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1895.

Transactions of the Colorado State Medical Society. Twenty-fourth Annual Convention. Denver, June, 1894. Published for the society.

Obstetric Surgery. By Egbert H. Grandin, M. D.. Obstetric Surgeon to the New York Maternity Hospital; Gynecologist to the French Hospital, etc.; and George W. Jarman, M. D., Obstetric Surgeon to the New York Maternity Hospital; Gynecologist to the Cancer Hospital, etc. With eighty-five illustrations in the text and fifteen full-page photographic plates. Royal octavo; pp. 220. Extra cloth, $2.50, net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street. 1894.

The Principles of Surgery and Surgical Pathology. General rules governing operations and the application of dressings. By Dr. Hermann Tillmanns, Professor in the University of Leipzig. Translated from the third German edition by John Rogers, M. D., New York, and Benjamin Tilton, M. D., New York. Edited by Lewis A. Stinson, M. D., Professor of Surgery in the University of the City of New York, Medical Department. With 441 illustrations; 8vo, pp. viii.—800. New York: D. Appleton & Company. 1894.

A System of Legal Medicine. By Allan McLane Hamilton, M. D., Consulting Physician to the Insane Asylums of New York City, etc., etc., and Lawrence Godkin, Esq., of the New York Bar. With twenty-seven collaborators. Illustrated. Volume II. Large 8vo, pp. 738. Price per volume, cloth, $5.50; full sheep, $6.50. New York: E. B. Treat, 5 Cooper Union. 1894.

Difficult Labor: A Guide to its Management, for Students and Practitioners. By G. Ernest Herman, M. B., Lond., F. R. C. P., Senior Obstetric Physician to the London Hospital; Physician to the General

Lying-in-Hospital; President of the Obstetrical Society of London; Examiner in Midwifery to the Royal College of Surgeons; Late Physician to the Royal Maternity Charity. Crown octavo, 442 pages, 162 illustrations. Price, muslin, $2.25. New York: William Wood & Company. 1894.

Fourteenth Annual Report of the State Board of Health of New York. In two volumes and accompanying maps. Transmitted to the Legislature February 15, 1894. Albany: James B. Lyon, State Printer. 1894.

## Literary Notes.

The *North Carolina Medical Journal* announces that it will appear as a semi-monthly magazine beginning with January, 1895.

It will be published on the 5th and 20th of each month, will be increased in size eight pages a month, and will don a complete new dress, while its subscription price will remain the same.

Bulletins number 6 and 7 of the Harvard Medical Alumni Association are interesting to all graduates of that college and also possess matters of interest to every medical student and physician. The first contains a catalogue of the Alumni and officers together with the constitution. The second comprises a report of the last annual business meeting held June 26, 1894, and a full report of the annual dinner, at which addresses by Dr. W. W. Keen, of Philadelphia, and Dr. William Osler, of Baltimore were made.

The Medical News' Visiting List, one of the best in the market, again presents itself to notice and for the favor of the profession. This book for 1895 follows closely its predecessors in style, make-up and contents, hence need not be described anew at this time. It is, as usual, published in four styles, and the price in any style is $1.25.

Special rates are offered in combination with the *American Journal of Medical Sciences*, the *Medical News* and the Year-Book of Treatment—either one or all. Published by Lea Brothers & Co., 706 Sansom street, Philadelphia.

Mrs. Jane C. Stormont, widow of Dr. David W. Stormont, of Topeka, Kan., has contributed $10,000 to assist in the purchase of a site and the erection of a building which, when completed, shall be a hospital for women. It is to be called the Jane C. Stormont Hospital and Training-School for Nurses.

This is the second time Mrs. Stormont has opened her purse to establish medical philanthropic institutions in Topeka. In the

issue of the JOURNAL for June, 1892, we noted the fact that she had given $10,000 to establish a medical library. This second gift of Mrs. Stormont is even more praiseworthy than the first.

It is the intention of the hospital board to erect a building of modern architecture and containing every late improvement. A staff of seven physicians will have complete control and management of the hospital and patients. It is probable that Dr. M. B. Ward will be appointed surgeon-in-chief.

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SEND twenty cents in stamps to McArthur Hypophosphite Company, Boston, for McArthur Vest-Pocket Diary, 1895. "Handiest and most useful little book for the physician that we have seen. Contains doses of drugs, including new remedies, a list of disinfectants and how to use them, antidotes for poisons, methods of treating emergencies, an obstetric ready reckoner and other valuable information."—*Brooklyn Medical Journal.*

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THE attention of our readers is invited to the initial advertisement of Schulze-Berge & Koechl, which appears in our columns in this issue. This firm represents in this country that well-known and extensive chemical industry, the Farbwerke vorm. Meister Lucius & Brüning, Hoechst-on-the-Main, Germany, and they have already successfully placed before the profession such standard medicinal products as antipyrin, dermatol, lanolin and tuberculin (Koch). They will also handle in the United States the new diphtheria antitoxin (Behring). Information and descriptive literature concerning the newer remedies which they import, will be cheerfully furnished when requested.

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THE New York Pharmaceutical Company, of Bedford Springs, Mass., advertises for the first time in the JOURNAL in this issue. Their card appears on advertising page xxx., to which attention is invited.

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NOTICE—A CALENDAR FOR 1895.—Upon receipt of request, P. Blakiston, Son & Co., Medical Booksellers, 1012 Walnut street, Philadelphia, will send free by mail, postage prepaid, a neat desk calendar for 1895.

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AN EXCELLENT temperature chart, prepared by Dr. D. T. Laine and published by W. B. Saunders, 925 Walnut street, Philadelphia, has the usual rulings in squares for tracings and ample space for mem-

oranda giving the daily history of each case. On the back is printed a synopsis of the method of Brand in the treatment of typhoid fever.

These charts are sold in pads of twenty-five at fifty cents a pad.

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The Columbia Calendar, published by the Pope Manufacturing Co., has paid us its annual visit. The issue for 1895 is especially attractive in its make-up. With new dress and new thoughts for every day in the year, it is a useful piece of desk furniture and is a daily reminder of the popularity of the Columbia bicycle, which is manufactured by this company at Hartford, Conn. The branch office in Buffalo is at 609 Main street.

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The Memorandum Calendar, published by the Davidson Rubber Co., Boston, Mass., is especially intended for physicians and druggists, but is useful on everybody's desk. Its separate leaflets for every day in the year, to be torn off each morning, contain also notices of the Davidson rubber goods, whose worth is everywhere acknowledged. Stoddart Brothers, 84 Seneca street, are among the agents announced for these popular goods.

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The *Index Medicus* will, it is stated, cease to be published with the February number, owing to the lack of support and the delinquency of a large number of its subscribers, unless an effort is made to continue it.

It will be possible to continue the *Index Medicus* if 500 new subscribers are obtained. The subscription price is $10 per annum, which should be sent to Mr. George S. Davis, publisher of the *Index Medicus*, Box 470, Detroit, Michigan.

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The *Journal of Medicine and Science* is the name of a new journal, published at Portland, Me., which made its first appearance in December. It is the official organ of the Maine Academy of Medicine, that has lately been organized. It is edited by Dr. E. E. Holt, who is assisted by Dr. J. A. Spaulding, and the names of the officers and Fellows of the Academy appear as collaborators.

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The New York Central and Hudson River Railroad, the only line in the world owning 450 miles of four tracks, may be said to be the great sanitary railway. This claim is based on the grounds of speed, safety, ventilation and cleanliness.

These points of excellence appeal to physicians. Its advertisement will be found on page xxii. of the Journal.

Buffalo Medical and Surgical Journal

Vol. XXXIV. FEBRUARY, 1895. No. 7.

# Original Communications.

## NOTE ON THE PROCESSES OF MENSTRUATION.

By LAWSON TAIT, F. R. C. S., Birmingham, Eng.

By the kindness of its author, Mr. Walter Heape, of the Cambridge Zoological Museum, who has supplied me with a copy, I am enabled to make some comments on his valuable paper published by the Royal Society, The Menstruation of Semnopithaces Entellus. In a new line of research he has obtained very considerable promise of success ; certainly he has, I think, so completely settled many of the problems that I may at once indicate that in which alone he still requires further search before he can completely satisfy us. I mean the process of denudation. Here he fails, because, I think, the tissue he has been working at is so delicate and so definitely terminated on the slide that his hardening methods are altogether faulty, and nothing will suffice (as I have argued over and over again) but the examination after staining of sections of absolutely fresh tissue cut by the freezing process.

He has made a marked advance in adopting a division of the menstrual cycle into four distinct periods, each with their distinct histological characters, indicating, on the whole, eight stages. These are :

A. Period of rest.
   Stage I.—The resting stage.
B. Period of growth.
   Stage II.—The growth of the stroma.
   Stage III.—The increase of vessels.
C. Period of degeneration.
   Stage IV.—The breaking down of vessels.
   Stage V.—The formation of lacunæ.
   Stage VI.—The rupture of lacunæ.
   Stage VII.—The formation of menstrual clot.
D. Period of recuperation.
   Stage VIII.—The recuperation stage.

At first sight, and to those who have only superficially considered these important phenomena, the above table will look like mere pedantic tautology, but careful reading of the body of the paper will soon remove such an impression. Good reasons will appear for its foundation on real fact, and it completely justifies the position I have occupied for many years—that we should not speak of menstruation occurring once a month, but we should speak of the menstrual processes occupying a whole month, for the periods of rest and recuperation (A and D) are as important parts of the process as any other—indeed for impregnation they are probably far more so, the last (D) being probably the only essential of all four.

The arrangement of the paper is so logical and complete that the author seems to leave a structure which will probably be far more lasting than most which have gone before, and it is a perfect mine of record of the astounding discrepancies in the statements of fact concerning the phenomena of menstruation. Writers of text-books who talk so glibly of the "accepted doctrine that detuscence of an ovum takes place rhythmically once a month, and is the cause of the external manifestations known as menstruation," will be astonished to find a tabular statement which shows that "the majority of recent writers are in favor of the view that ovulation is not necessarily coincident with menstruation." The question is not merely a scholastic one, not merely a question of physiology, when it is remembered that on the recurrence of menstrual flows after removal of the uterine appendages it has been asserted over and over again that a piece of ovary must have been left, as if a strangulated fragment of an organ could carry on mature function.

I have not space enough to follow Mr. Heape in many of his interesting conclusions, but he touches, by the way, on some very interesting points bearing on the great questions of the day, and shows us how far too easily we are led in phases of fashion, even in questions of physiology. One of them at the present moment is the action of leucocytes, or, as their last nomenclature gives it us, phagocytes.

Speaking of the clearing away of the hemorrhagic dèbris, Mr. Heape says, "according to Metchnikoff, the congregation of the leucocytes in the vessels near the surface indicates the presence there of noxious material. The casting off of the menstrual mucosa together with this irritating substance, and the rapid clean healing of the wounded surface would have the effect of clearing away that

which the leucocytes were summoned to absorb ; their protective presence in this instance, then, is not required, and they may be said to have been induced to appear on the scene to undertake duties which are otherwise performed." The delicate irony of the last few words is fun as much as can be expected in the Transactions of the Royal Society, but it bursts the "cell-policemen" theory of Metchnikoff as completely as dynamite.

Concerning the relations of ovulation with the menstrual process, I need only copy a few of Mr. Heape's words to show that the belief, so deeply treasured in the mind of the medical profession, that they are concurrent and interdependent, is a hallucination. It is many years since I proved this, with Dr. A. E. Clarke's assistance in human menstruation, but I have made no sensible impression on the minds of my brethren, certainly not on the text-books. (P. 442) "Thus, as far as discharged follicles are concerned, it is seen that out of forty-two menstruating specimens, none of which had recently borne young, only two had a recent corpus luteum in their ovaries. Such a result appears to me amply sufficient to warrant the statements :

"First, that ovulation does not necessarily occur during each menstrual period ;

"Secondly, that menstruation is not brought about by ovulation;

"It is no doubt possible that an increased blood supply may affect the ovary, and may have a tendency, by means of pressure, to induce ovulation where an ovum in a sufficiently advanced stage of development is present. In my opinion this is a very probable view; it does not, however, permit of the inference that an ovum is actually detusced at each menstrual period, but rather that if an ovum in a sufficiently ripe state be present, the congestion which occurs during the menstrual period may cause it to be shed." This, of course, is the only feasible explanation of the relative infrequency of human gestation to what would be the case if impregnation *might* follow every menstrual period. Mr. Heape is further of opinion that his evidence points to the conclusion that the ripening of the ovary is independent of the process of menstruation, and that ovulation is neither the cause nor the necessary result of menstruation. As a corrollary of this, of course, the fetish of the corpus luteum comes in for wholesale destruction : "In the first place I greatly doubt the possibility of determining accurately when a Graafian vesicle is perfectly ripe ; and in the second place I doubt if it is possible to be assured of the exact age of a 'false'

corpus luteum." Yet in a court of justice the corpus luteum has been the point on which life and death has depended—not so very long ago.

The importance of these views is not one of mere dialectic importance, for I have contended, and I contend still, that it is impossible for us to arrive at proper conclusions concerning the pathology of the uterine appendages until we get quit of the still accepted view that ovulation is the cause of menstruation. My opposition to this view has, more than anything else, brought upon me the opposition and misrepresentation to which my surgical doctrines have been subjected.

7 The Crescent.

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## A CASE OF NEPHRECTOMY ON ACCOUNT OF NEPHROLITHIASIS AND PYONEPHROSIS.[1]

By HERMAN MYNTER, M. D.,
Professor of Surgery, Niagara University, Buffalo, N. Y.

John Setter, 22 years of age, entered the Sisters' Hospital on August 24, 1894, with the following history:

He had complained for the last seventeen years of periodical attacks of pain in the back and left lumbar region. Up to five months ago the attacks occurred about once in six or eight weeks with free intervals, extending downwards in left scrotum and thigh and could only be relieved by hypodermics of morphia. They would suddenly cease and hours afterward he would pass, with great pain, a whitish, soft mass, which did not have the appearance of a stone, and then a profuse flow of scalding urine. During the last five months the above symptoms had increased in severity and become continuous. The patient had lost greatly in weight, suffered from profuse night sweats, loss of appetite, occasionally a dry cough. The parents were healthy, but one brother had died of consumption. At the examination the patient appeared extremely emaciated and cachectic, with protruding cheekbones and hectic flush. There was great tenderness from pressure in left lumbar region, but neither anteriorly nor posteriorly, standing or lying, could any swelling or enlargement of the kidney be discovered. He was also somewhat tender to pressure over the right lumbar region.

He passed about one quart of urine in the first twenty-four hours, half of which was pus. The urine had a color like chocolate, specific gravity 1030, acid reaction and was loaded with albumin. Microscopically nothing was seen but pus corpuscles.

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

By cystoscopic examination under cocaine anesthesia and after preliminary irrigation of the bladder an excellent view was immediately obtained of the fundus of the bladder. The mucous membrane appeared perfectly normal. The orifice of the right ureter was seen as a small oblique slit through which a swirl of healthy urine passed every four or five seconds. Turning the cystoscope towards the orifice of the left ureter I saw what appeared to be a deep crater-formed ulcer, about two centimeters in diameter. Nothing appeared for two or three minutes, when suddenly a cohesive, thick, yellowish mass commenced to protrude through the crater, as thick apparently as a little finger. When about two inches of this mass had entered the bladder, it disappeared from view and was followed by a profuse discharge of yellowish pus, which quickly obscured the field. As it was evident from this examination that the patient suffered from a pyonephrosis of the left kidney, and that the right kidney was healthy, nephrectomy was advised, although his condition was so miserable that it seemed impossible he could survive such an operation. The operation was performed on August 8, 1894, under chloroform narcosis, the patient having been stimulated for a couple of days with hypodermics of strychnia, nitroglycerine, whisky and rectal alimentation. The pulse was then 130, weak; temperature had ranged between 101 and 103. The incision was made along the rectus spinal muscle, ending near crest of the ileum, combined with an oblique incision along the whole lower border of the twelfth rib. The kidney was almost wholly covered by the ribs, strongly attached to the colon and the surrounding tissue. During the process of enucleation, which was extremely difficult on account of the strong adhesions and its high position, my whole arm almost disappearing up to the elbow in the wound, a large abscess in the kidney itself was ruptured, from which a large amount of ill-smelling pus, estimated at one pint, escaped. The hilus was at last reached, the kidney brought out through the wound, two clamps attached on the hilus, in order to finish the operation quickly, and the kidney removed. The ureter was as large as a finger. The wound was disinfected with corrosive sublimate, loosely packed with iodoform gauze and partly sutured. The patient left the table in a state of profound shock, pulseless and with clammy perspiration, but by active stimulation he revived in a short time. The operation lasted about three-quarters of an hour.

The kidney preserved its general contour, but was enormously

enlarged, its volume being about six times that of the normal. It measured seven inches in length, four in width and three in thickness. Its weight was twenty-eight ounces, but, as at least one pint of pus escaped, its weight must have been about forty-four ounces, equal to two and three-quarters pounds. The capsule was adherent and blended with the renal structure. The color in no place was that of a normal kidney, but that of fat and fibrous tissue.

The surface presented numerous large circumscribed swellings, which on palpation were soft and fluctuating, and on incision were found to contain a thick, greenish tenacious pus. On the posterior surface was a large abscess cavity, ruptured during the operation. On section, no normal kidney structure appeared. The upper third was a mass of multilocular abscesses, which intercommunicated and contained pus of the same character previously described. The middle third was a mass of fat and fibrous tissue. Lying in the latter was a large triangular-shaped stone, $1\frac{3}{4} \times \frac{3}{4}$ inches, of a greenish-brown color, irregular in shape and with rough surface. The lower third showed two abscesses, the larger being three-fourths of an inch in diameter. In one of the abscesses in the upper part a rough, irregular stone was found. The pelvis was greatly enlarged, full of pus and contained several cohesive, yellowish masses of necrotic tissue, impregnated with pus, like the one which was seen to pass with the cystoscope. Scarcely any traces of kidney tissue could be seen, and its function as a secreting gland had, probably, long since ceased. August 9th, temperature, 102 2-5 ; pulse, 130. He has passed 19 ounces of urine since the operation, the last of which is perfectly clear and normal. He is extremely weak and is given 1-60 strychnine and 1-100 nitroglycerine every three hours hypodermically. He has taken one quart of milk during the night.

August 10th, temperature, 101 ; pulse, 120 ; $28\frac{1}{2}$ ounces of clear, normal urine. The patient takes lots of nourishment and rests well.

August 11th, temperature, $99\frac{1}{2}$ ; pulse, 126 ; 31 ounces of urine. Clamps removed, and cavity irrigated and loosely packed with iodoform gauze.

August 12th, temperature, 99 ; pulse, 108 ; 27 ounces of urine. Patient takes solid food.

August 13th, temperature, 100 ; pulse, 110 ; 32 ounces of urine.

He gradually improved, passed from 35 to 45 ounces of urine daily ; pulse and temperature became normal. On August 23d,

the dressing was found saturated with fecal matter, a fistula evidently having formed into the colon, but it healed in a couple of weeks.

On August 25th the patient was sitting up; the large cavity had contracted so that only a small granulating fistula was left. His weight had increased to 105 pounds; he felt perfectly well and was discharged to his home September 22d. Weight, 137 pounds, a gain of 36 pounds. Patient a picture of perfect robust health; urine normal; fistula closed.

October 1st, weight, 140 pounds. October 12th, weight, 147 pounds. The patient has gone to work in a machine shop.

The interest in this case is the ease with which the diagnosis was made by the aid of the electrical cystoscope, and particularly the demonstration that the right kidney was healthy and, therefore, an operation advisable. Only by operative means in two other ways —an explorative laparatomy or an explorative suprapubic cystotomy with catheterizing of ureters—could the diagnosis be cleared up, and there is no comparison between these methods and the simple cystoscopic examination, done without any danger to the exhausted patient. Cystoscopy necessitated, of course, that the bladder shall be able to contain five ounces of clear fluid, and that the cystoscope shall be able to enter the bladder. Luckily both indications were fulfilled in this case.

A second point of interest was the impossibility of feeling and palpating the enormous kidney before operation. I can only explain this by the strong adhesions of the lower segment of the kidney to the colon and surrounding tissue, by which the kidney was forced to enlarge upward and forward below the diaphragm. A third point of interest was the long time—seventeen years—in which the patient had suffered from nephrolithiasis without a distinct diagnosis having been made, and the rapid and perfect recovery that followed the removal of the diseased organ, the patient in seven weeks gaining forty-five pounds in weight. I have during the last three years performed nephrectomy four times. Two operations were done on account of tuberculous kidneys. One of these died on the fourth day of suppression of urine, and the post-mortem examination showed the remaining kidney to be tuberculous. A cystoscopic examination would in this case probably have shown that the operation was contra-indicated. The second case recovered, but died half a year later of general tuberculosis of the urinary organs. The third operation was per-

formed in October, 1892, on account of a large sarcoma of the left kidney in a lady fifty years of age. The patient recovered, and so far, two years after the operation, no relapse has occurred and the patient is in perfect health.

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## REPORT OF A RECENT CASE OF ABDOMINAL PREGNANCY, COMPLICATED WITH PYO-SALPINX— LAPARATOMY, RECOVERY.

By H. T. WILLIAMS, M. D., of Rochester, N. Y.

The patient was referred to me by Dr. J. H. Finnessy, of Rochester, N. Y., in whose practice it occurred, and was admitted to St. Mary's hospital September 10, 1894, with the following history :

Mrs. Geo. L., born in Canada, 29 years of age ; married nine years ; one child, now 8 years of age.

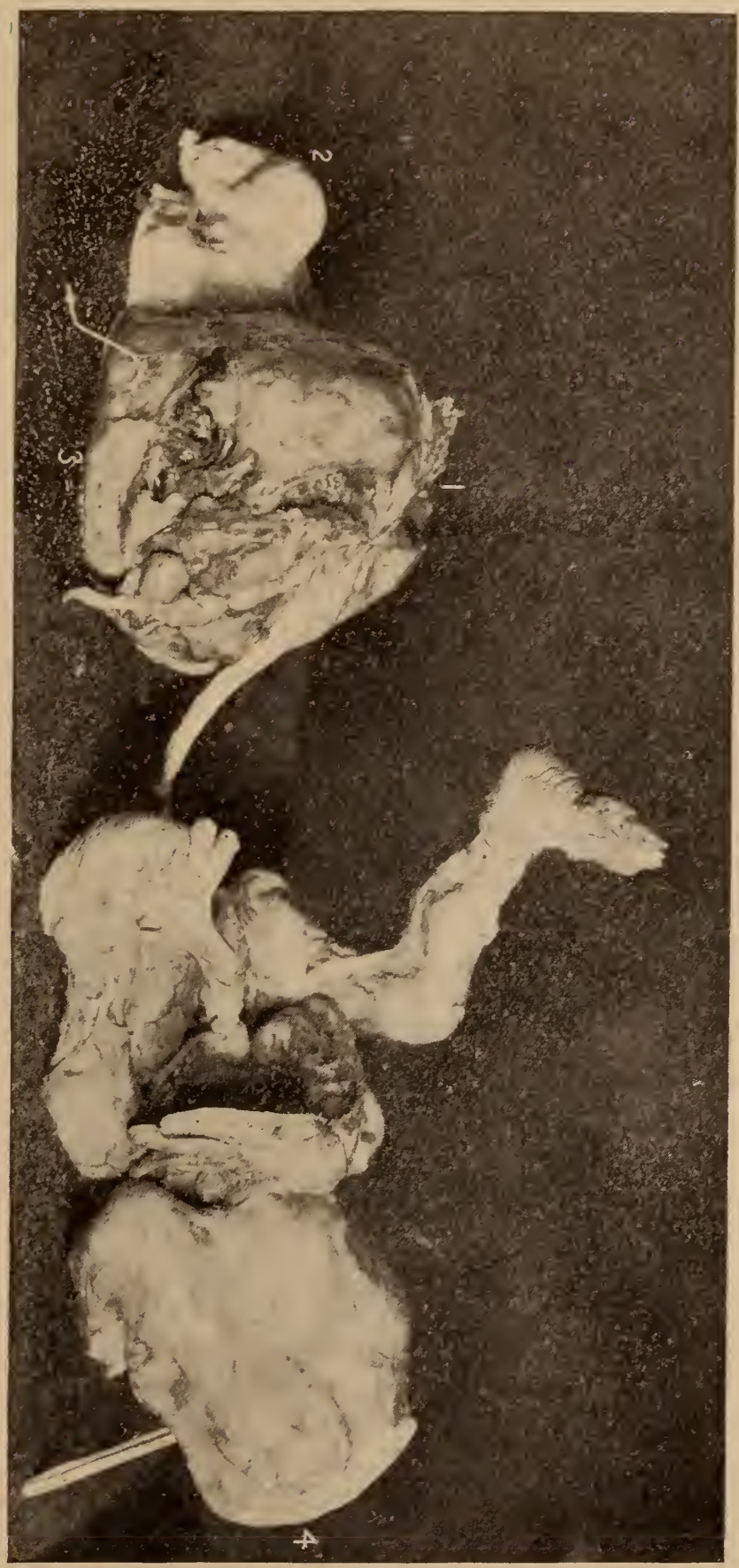
*Menses* irregular ever since birth of child. Menses ceased last December ; some morning sickness followed ; she increased in flesh. This increase was more noticeable after the sixth month. The abdomen increased in size until fore part of last April, when she had a sudden flow of water from her vagina which continued all of one day. Since that time her abdomen has gradually diminished in size ; but ever since the flow of water from the vagina, she had had occasional sharp, shooting pains through the abdomen. Last July, noticed that her breasts were very large and contained considerable milk for two weeks, when it gradually disappeared and breasts grew smaller until at the time of her admission to hospital they had reduced to their normal size.

In August last, for two days, had severe pains in abdomen, which resembled labor pains ; since then she has been comparatively comfortable, with the exception of occasional slight pains. In the early part of August, a few days after the attacks of severe pain, she menstruated normally, the flow lasting four or five days ; she menstruated again September 1st, one week before operation.

*Vaginal examination* reveals a tumor somewhat irregular in shape, lying above and to both sides of the uterus, but by far the greater part of it to the right of the womb.

She was operated upon September 10, 1894, about an hour and a half after her admission into the hospital. An incision three and one-half inches in length was made in the median line of the abdomen between the umbilicus and symphysis pubis. The fetus (a male) was found still covered with the amniotic sac (which was empty and firmly adherent to fetus) lying in the abdominal cavity

1 Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.




WILLIAMS—ABDOMINAL PREGNANCY.

1. Tube and Placenta.
2. Ovary.
3. Pus Sac.
4. Head, with left hand adherent

on top of the fundus of uterus, and in many places firmly adherent to intestines, which, however, were stripped off without much difficulty and the fetus easily removed. It was about the size of one of five months, but had evidently been dead for some time, and was considerably shrunken and macerated. One hand is adherent to top of cranium. The head is somewhat irregular in shape, rather triangular, and apparently there are no eyes, ears or nose, although this is undoubtedly due to the fact that the amniotic membrane is now so firmly adherent to the head and so much thickened as to obliterate them.

The placenta, which is of good size, was found in the expanded Fallopian tube, to the right of upper part of fundus of uterus. The umbilical cord passed through an opening in the tube to the umbilicus of the child. A part of the tube near the placental attachment was sacculated and contained several ounces of pus, which burst during removal, and some of the pus escaped into the abdominal cavity; the ovary on that side (the right) was healthy, but had to be removed with the tube. There were not many troublesome adhesions, and the tube with the placenta and ovary was ligated with silk ligature three-fourths of an inch from uterine attachment and removed, and the stump cauterized with paquelin cautery. Very little bleeding occurred during any part of the operation. The left ovary and tube were healthy and were not removed; the abdominal cavity was flushed with two or three quarts of warm sterilized water. The incision in peritoneum was closed with fine running catgut suture. The aponeuroses and small amount of muscular fibers closed with five silkworm gut sutures, which were tied with two knots, then cut short and allowed to remain; then a few intermediate medium-sized catgut sutures through anterior aponeurosis of muscles to perfectly approximate the two surfaces. Several large-sized catgut sutures were then passed through the skin and down to aponeurosis of muscle and the skin then closed over the silkworm-gut sutures, in this way completely burying them; a few intermediate fine catgut sutures through skin entirely closed incision, approximating the surfaces nicely. This method of closing the incision in laparatomies is one I have used in a number of cases recently, and have been greatly pleased with the results. In all but two cases union has taken place by first intention, and in these two cases (of which the above case is one) only the skin separated for a short distance, but no separation of the muscles took place; the silkworm gut remains strong

and unirritating, and it is almost impossible for a hernia to occur.

The after-dressing consists in dusting the wound with a little powdered iodoform; then covered with iodoform and bi-chloride gauze held in place by two strips of adhesive plaster extending across abdomen, then a layer of absorbent cotton and a wide flannel bandage completes the dressing.

The patient made a rapid and uneventful recovery, with very little constitutional disturbance of any kind. The highest temperature, 100 4-5°, occurred on the fourth day after the operation, and dropped to 99° after a free movement of the bowels had taken place.

The incision healed by first intention with the exception of about an inch of the upper part, which separated through skin and fat only, and soon entirely closed again. She was allowed to get out of bed on the twelfth day, and at the end of the third week was able to walk about as she pleased, and was discharged from the hospital cured.

19 Clinton Place.

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## TWO PECULIAR CASES OF HERNIA.[1]

By CLAYTON M. DANIELS, M. D., Buffalo, N. Y.

In this brief paper it is not my intention to go into a dissertation upon hernia, interesting as the subject is in all its bearings, but to put upon record two cases which are novel if not unique.

Case I. On May 23, 1893, C. Munjella, 42 years old, married, an Italian laborer, while holding a "scraper" drawn by horses in the erection of a railway earthwork, was forcibly struck in the left groin by one of the handles. The blow caused great pain at the time, and a prominent swelling at once appeared. He continued work for two or three hours until suffering forced him to go home, where he remained for three days without attention, except the application of some household remedies. At the end of the third day he came to my office, walking with difficulty and well bowed over at every step.

Upon examination I immediately noted the absence of testicles in the scrotum, and the patient stated that he "never had any," so far as he knew, although he was a married man and sexually strong, but without children.

1. Read before the Medical Society of the County of Erie, January 8, 1895.

Attention being turned to the swelling in the groin, it was not hard to diagnosticate a full-sized testicle lodged in the inguinal canal. So long a time had elapsed since the injury that the swelling and inflammatory conditions present had occluded the internal ring so that a reduction into the abdominal cavity was not possible, and the cord was too short to allow of its progress farther toward the scrotum.

I directed him to the hospital, where later in the day I removed the testicle, leaving the stump of the cord carefully adjusted with a stitch so as to practically plug the internal ring from the inner side, making a radical operation so far as preventing the escape of any abdominal viscera hereafter. He promptly recovered and returned to duty in twenty days. He has since reported that he is perfectly well, and that for all practical purposes his sexual abilities are unimpaired.

It seems a peculiar coincidence that a man with non-descent of the testes should receive an injury necessitating partial castration.

On December 10, 1894, I was invited by your president to go to East Aurora prepared to operate for hernia. I found the patient to be a lady, Mrs. H., with the following history :

Case II. Age 37, married at 16 years, has had eight children, the two last being twins. Had an inguinal hernia upon the right side for thirteen years, but which caused but little trouble, as a truss had been worn satisfactorily.

On December 5th last, she reported to Dr. Gail that the hernia had been down for three weeks and a new truss would be required. She came to this city and consulted a well-known dealer in those articles and who tried to reduce the hernia, but failed. She secured the truss, went home and consulted Dr. Gail, complaining of pain in the back in addition to that in the groin, which had become so very tender that no amount of pressure could be tolerated, which made a critical examination difficult. A tumor the size of a hen's egg presented, which showed evidence of fluid, surrounding a firm lump which refused to be returned into the abdominal cavity. Bowels had been fairly regular and no nausea ; these conditions were present up to the time I first saw her, although she was getting restless, not sleeping well, bowels somewhat tympanitic, pulse 80, temperature normal.

I felt certain that we were to meet with something out of the usual line of hernia, and think that opinion was shared by Dr. Gail.

Operation in the usual way, going down and opening the sac freely, from which escaped about two ounces of serum, and at the bot

tom of the sac and very adherent nestled an ovary which had tried to escape via the inguinal canal. The internal ring had become closed by inflammatory adhesions, and after a little careful dissection I had the satisfaction of having performed ovariotomy without opening the abdominal cavity. I closed the ring with the ovarian ligament, which was quite large, in the same manner as I did with the spermatic cord in the first case described, anticipating a radical cure of the intestinal hernia previously occupying the canal.

Reports upon the case show that the wound closed by primary union, and that the patient has made a rapid recovery.

315 Jersey Street.

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# Clinical Lecture.

## SARCOMA OF TONSIL—CANCER OF BREAST—CLINIC AT BUFFALO GENERAL HOSPITAL.

By ROSWELL PARK, A. M., M. D.,
Professor of Surgery, University of Buffalo.

### I.—SARCOMA OF THE TONSIL.

Here is a man who presents a hard enlargement on the side of the neck. The skin is reddened over it, but this is due to the recent application of a poultice. It is well to distinguish between an artificial redness of this sort and inflammatory rubor. If it were inflammatory, I should expect the skin to be less freely movable. The tumor is in and around the sterno-cleido-mastoid muscle and quite firmly blended with it. It is very firm and hard and only slightly movable. It does not roll around beneath the skin, but has pretty firm, deep adhesions. It reaches to the jaw and is about the size of a hen's egg.

I will next examine for any enlarged lymph-nodes that may be present. I can feel none. The patient says that he has had the growth "all Summer," and this is as definite information as we can obtain. His speech is thick and his voice hoarse. This is not his normal voice, and the patient tells me that he feels as if there were an enlargement of his throat. Internally, there is a large irregular fungous mass, filling up half the pharynx. The mass is jagged and more or less ulcerated, deserving the name of fungous

growth. The diagnosis is sarcoma. This diagnosis could have been made without looking in the throat, but the view that I got made it easy. Whether it began in the tonsil or outside, there is now no means of knowing. Primary sarcoma of the tonsil is rare, there being not more than thirty or forty cases on record. The case is necessarily fatal, and speedily so, for such growths enlarge in arithmetical progression. It will soon become difficult for the patient to swallow, and later, even breathing will become difficult. I should not advise operation in this case, for it would be terribly severe, and the trouble would soon return. I have had one case of primary sarcoma of the tonsil, in which I split the jaw and took out all that side of the throat. The patient is now, two years after the operation, perfectly well. In clinic, a short time ago, I did a similar operation, and the patient died soon after. In this I do not think a total extirpation would be practicable, and unless the whole tumor is removed, there can be no hope of saving or materially prolonging life. In the last case of this kind, to which I have just referred, the patient was threatened with suffocation, and, with death staring him in the face, he begged to have the chance of relief, at any risk. I should be averse to operating under the present circumstances. Later, a tracheotomy may be indicated. Or, if the pressure is more on the esophagus and the man is in danger of starving to death, a gastrostomy might be done, in order to allow artificial feeding. But there is no averting the doom, and I shall not think of operating except for temporary relief.

### II.—CANCER OF THE BREAST.

The first operative case this morning is a woman, 51 years of age, who has foolishly allowed a large tumor of the breast to go on for a year, under the delusion that it might be helped by medicine, in which hope, I am sorry to say, she has been encouraged by a man who is practising medicine. I will very briefly run over the indications of its malignant character and will then remove the breast. The breast itself is still somewhat movable over the deep fascia. If there were firm adhesions to the pectoral fascia, I should hesitate about attacking the tumor at all, thinking that she would live longer without operation than with it. In this case, however, we hope to prolong life, if not to save it. Twice within the last few years I have seen malignant disease in this location lighted up into renewed and awful activity by untimely interference. Still, if operation were refused in all

cases in which the hope of absolute cure could not be entertained, great injustice would be done to many sufferers from malignant disease. The patient has a fleshy axilla, and from the outside I do not detect any lymphatic enlargement, but it is not safe to consider her free from such metastasis. The lump is hard and there is no reasonable doubt that the tumor is a scirrhous cancer. The entire mammary gland must be sacrificed and a good deal of surrounding tissue for fear of recurrence. Ordinarily, the incision is made elliptically with the long axis pointing downward and inward, but I shall reverse the usual incision and make a broader ellipse with the longer axis pointing downward and outward. In one place you can see that the growth has gone nearly to the pectoral fascia, and I shall deliberately remove most of the pectoralis major. The sacrifice of muscle is a minor point in comparison with the importance of removing every vestige of the neoplasm. Now, extending the incision toward the axilla, you see, I come at once upon an enlarged lymph-node. This indicates that the axilla must be cleaned out—indeed it is a safe rule to do so in any operation for malignant tumor of the breast.

The operation in the axilla will occupy more time than the original removal of the breast. It is necessary to expose the axillary vein, and the man who hesitates to do this had better not undertake to remove a breast. One or two small branches of the axillary vein are broken through in clearing away the connective tissue and fat from the lymph-nodes which lie deeper. These veins I will catch now with hemostats and will ligate later. Last year, while doing an operation for recurrent cancer, in the course of which I had to go higher in the axilla than is here necessary, I tore off a large branch of the axillary vein so close to the main vessel that ligation was impossible. I knew that if I ligated the axillary vein there would be established a permanent edema of the arm, and I therefore adopted a method of procedure which is coming into vogue with a few surgeons, and closed the tear in the wall of the vein with a couple of hemostats, suturing the wound with the forceps in place. After four days they were removed and not a drop of secondary hemorrhage followed.

In the present case, after clearing out the axilla as completely as possible, I have only two or three lymph-nodes and a few tags of fat to remove. The wound is closed with buried sutures and the ordinary cutaneous suture of catgut. There has been, throughout the operation, much less hemorrhage than usual. I have taken

the ground that drainage, in any fresh, aseptic case, is a confession of ignorance or of fear. In the present case, I shall leave a small outlet for drainage through an absorbable bone tube which will disappear in a few days. I do so because I have some fear that part of the tissues left may break down and slough away. After the insertion of the drainage tube and the completion of the sutures, I make pressure in order to force out whatever serum and blood has been left in the wound—namely, to dry it. I feel now as confident of good result as one ever can in any operation for similar disease. The field of operation is smeared with sterilized and antiseptic vaseline to prevent the sticking of the dressings, powdered with iodoform, and the wound is covered with strips of iodoform gauze, over which is laid the ordinary dressing of bichlorid gauze and cotton.

Here is the tumor split in two, and one side I show you in the normal condition, while the other has been subjected to Stile's test, which consists in the application of a 10 per cent. watery solution of nitric acid. This coagulates the albumin of the tumor and gives it a cartilaginous appearance, the dense whiteness of the tumor showing in bold relief against the yellowish, fatty tissue surrounding it. In this way, the test of the thoroughness of the operation can be made by an assistant while the vessels are being ligated, and if any ramification of the tumor is seen going up to the edge of the tissue removed, a further excision can be made at that point.

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# Translation.

## THE TREATMENT OF DIPHTHERIA WITH ANTITOXIN.

### TO BE PREPARED WITHOUT THE MEDIATION OF THE ANIMAL ORGANISM.

By. DR. A. SMIRNOW.

Translated from *Berl. Klin. Wochenschr.*, xxxi., 30, 1894.

By F. G. MOEHLAU, M. D., of Buffalo, N. Y.

Smirnow expresses himself as much reserved as to the practical value of the serum therapy. He discusses the question, whether the processes of antitoxin formation are purely vitalistic or whether they occur according to known chemical laws!

Dr. Smirnow, induced by Professor Nenki, made experiments to investigate whether it is not possible to produce certain proper-

ties in serum of normal or diseased animals by oxidation, or reducing reaction such as are peculiar to animals made artificially immune by antitoxin. After several unsatisfactory results, Smirnow began to subject the serum of dogs to an electrolysis. He observed, at first, cloudiness on the negative pole and coagulation which redissolved again, and that on the positive pole the fluid remained clear. If the acid liquid derived from the negative pole, or the alkaline liquid from the positive pole, were injected below the skin of a rabbit, no noticeable change occurred, whereas, after the injection of 1 c. cm. of the decomposed and neutralized serum, (no matter whether it be derived from the negative or positive pole,) a decided rise in temperature was noticed, slowly decreasing. Further investigations showed that this action is dependent upon changes in the serum albumin, not the globulin. Animals which had been infected with glanders, diphtheria, lyssa, etc., and to all of which said serum had been injected, showed the rise in temperature but died of the typical disease.

Smirnow prepared new diphtheria cultures in serum, solution of albumin and globulin, and he was able to obtain diphtheriatoxin of the first two species of cultures, which he subjected to electrolysis and found that by this method the bacilli are not destroyed. With the first experiment it became evident that it was possible for the toxin to be changed into antitoxin by means of electrolysis. Smirnow was hereby enabled to cure diphtheria in rabbits by injecting electrolitic serum and albumin. Since then, Smirnow has succeeded in preparing antitoxin by electrolyzing cultures in bouillon *with positive success.* The activity and strength of the antitoxin is relative in proportion to the virulence of the toxin subjected to electrolysis. Smirnow is of the opinion that by his method a more active immunizing agent may be prepared than by the inoculation method. He promises further investigations in this line, especially also in tuberculosis.

1343 Jefferson Street.

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Doctors should be careful about buying preparations labelled "antitoxin." The temptation to manufacturing chemists is, of course, great, to offer this promising remedy for sale, but inasmuch as the process of manufacture requires several months, there is as yet no reliable antitoxin of American make. Thus far only the German or French preparation can be considered genuine or effective.—*Atlanta Medical and Surgical Journal.*

# Reports of Societies.

## THE EIGHTH PERIODICAL INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, HELD AT EDINBURGH, AUGUST 7–11, 1894.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

(*Continued from page 356.*)

### INJURIES.

Leber (4) had found that injuries of the eye from copper or brass are generally aseptic. Test cultures, however, should be made, and if microörganisms can be grown from the extracted foreign body or from the discharge from the wound, the eye should be enucleated; but if aseptic, the wound soon heals, and there is very little danger of sympathetic ophthalmia, as the latter is almost always septic in origin. It had not occurred in any of his cases, forty-six in number. Conservative treatment is especially indicated as long as the function of the retina is intact. He believed that in working people the retention of the globe is desired, as they consider a globe, however disfigured, better than any substitute.

Knapp reported a case in which, twenty-three years ago, he had extracted a piece of gun-cap from the bottom of the vitreus which had entered the eye through the ciliary body three days before. He did this by means of a curved, grooved hook, passed through an opening made in the sclera, the fundus of the eye being illuminated during the operation by a head-mirror. A cyst afterward developed at the point of entrance of the foreign body, which he radically removed. He had seen the patient the past winter, and found the eye in good condition and with good sight.

Roosa, of New York, asked Leber if the situation of the wound had been fully considered by him, in speaking of the danger of sympathetic inflammation. It seemed to him that even an aseptic wound in the ciliary region might cause sympathetic inflammation, while one in the cornea or sclera might not.

Noyes had seen cases in which pieces of gun-cap remained visible on the retina for many years without further injury; but it had generally been his rule to enucleate eyes thus injured. It would be a great relief, both to him and his patients, if Prof. Leber

could show him how to save such eyes, for the saving of even a deformed eye is a most precious attainment.

Kipp, of Newark, N. J., mentioned a case in which a piece of gun-cap entered the eye through the cornea and lens and lodged in the lower half of the retina, twenty-four years ago. The lens became absorbed, when the retina was seen to be clear, except at the point where the foreign body was lodged. There was no detachment, and vision is $\frac{20}{80}$.

Meyer, of Paris, had published a curious case, in which a piece of gun-cap had entered the eye of a boy and could be seen resting upon the supero-external part of the fundus. A year later it was found to have been spontaneously expelled at the point of entrance, in the midst of a small subconjunctival abscess.

Leber, in closing, said that not in one case of his had he observed either sympathetic irritation or inflammation. He did not fear sympathetic irritation by reflex action, because this could be inhibited by performing enucleation afterward, if necessary. In two cases in which he had, for greater security, enucleated the eyeball, anatomical examination gave him the impression that the enucleation might have been avoided.

Panas (5) concluded his paper with regard to traumatic motor paralysis of the eye due to compression, as follows:

1. In the majority of cases the paralysis is due to fracture of the base of the skull.

2. The absence of depression of the bones of the vault of the skull is no proof that fissures do not exist in the base.

3. The nerves most frequently paralyzed are the sixth pair, owing to their being most intimately connected with the bone in question.

4. The compression may be caused either by the fracture itself or by hemorrhage into the cranium. In the former case, the paralysis is more or less immediate; in the latter, it may not appear until late, as in plastic exudations by phlogosis.

Chibret had recently had a case in which a lad had had his head squeezed transversely, through some mismanagement of an elevator, and three months after the accident had paralysis of both sixth nerves. He was obliged to practise a tenotomy of both internal recti muscles to enable the patient to walk without difficulty.

Dufour (18) read an interesting paper on the accidental retro-choroidal hemorrhages which sometimes take place after operations on the eye. The accident was rare, Alb. von Graefe having only

met with it twice in his extensive experience. The origin of the hemorrhage is retro-choroidal, as was obvious from a case in which he had seen it supervene after an iridectomy for the relief of extreme pain in a case of absolute glaucoma. The eye was enucleated, and examination showed that a large hemorrhagic focus had pushed the retina and choroid toward the wound.

No examination of the eyes or of the heart and vessels had ever enabled him to diagnosticate, beforehand, a liability to hemorrhage. At first he had resorted to hemostatic measures, such as refrigeration, pressure and derivation, without success. In one case he enucleated the eye. During the past four years, as soon as he had noticed symptoms of this complication, he had injected a large dose of morphine into the temple, near the eye. He suggested adding to the injection a substance susceptible of producing nausea. He has treated three cases in this manner with much less serious results than by other methods.

Ayres, of Cincinnati, reported a case in which this accident occurred four hours after iridectomy for glaucoma in a patient sixty-five years old. The entire vitreus was forced out. The eye was immediately enucleated.

Gruening, of New York, had seen the accident follow a cataract extraction in a man nearly ninety years old, in his own practice, and in another patient in Paris almost eighty years old.

Power, of London, thought it was remarkable that the accident was not more frequent, in view of the sudden reduction of tension in operation. He had had two or three cases occur in eyes that were not healthy. In one case an iridectomy had been performed, and in another a cataract extracted.

Darier thought the idea of provoking nausea to arrest hemorrhage seems practical, and suggested the injection of a small dose of apomorphine.

Dufour said, in closing, that the first two cataract patients were seventy and eighty years old respectively; the two glaucomatous cases were over sixty, and the last three operated cases were nearly seventy. He thought a solution of apomorphine and morphine would suit very well. But the cases occurred unawares, when the apomorphine was not immediately at hand. It would be well to have it in reserve.

### MEDICAL THERAPEUTICS.

Mules (6 *b*) reported unusually good results in the treatment of corneal ulcers by placing an antiseptic wafer over the cornea

and then using an iodoform pad with a bandage over the eyes for several days. The wafer is made of gelatin, a saturated solution of boracic acid and iodoform in impalpable powder. It is dipped in boracic acid solution before being used. Cicatrization often occurs in three days.

Noyes said that Dr. Williams, of Cincinnati, at the meeting of this congress in 1876, recommended the use of pure carbolic acid to corneal ulcers, and he (Noyes) had many times proved the value of this procedure. Only one application is generally necessary, the result and the indications being practically the same as those in the use of the actual cautery.

Vian (20) recommended crude petroleum in the treatment of diphtheritic conjunctivitis, and reported three cases illustrating its effect. The first was one of ophthalmia neonatorum, which in a few days was transformed into pseudo-membranous conjunctivitis. After failure with various remedies and loss of the right cornea by necrosis, he began cleansing the mucosa and palpebral folds twice a day at first, with a pencil dipped in petroleum, and later every three hours. Improvement began at once and recovery rapidly took place.

The second case was one of marked diphtheritic conjunctivitis in a child three years old, a grayish exudate completely covering the conjunctiva, the lids being indurated and swelled and the cornea becoming cloudy. The case was fully recovered after forty-six days under the applications of the petroleum.

The third case was in a boy three years old, but the disease was less severe. He was restored in a month by the same treatment.

He suggests that the applications of the petroleum should be made every hour.

Bach (24) believed that sub-conjunctival injections were ineffectual in corneal abscess, and was sustained in this belief by experiments made on rabbits in which he had produced corneal ulcers and abscesses by staphylococci. He preferred cauterization to grattage of the abscess as more certain and also as less dangerous. Hypopyon implies an inflammatory complication on the part of the iris and ciliary body.

Chibret (29) for twenty-nine years had suspected that iodide of potassium did not possess specific value in syphilis. Nineteen years of ophthalmic practice had confirmed him in this opinion.

Observation and experience had established in his mind the following propositions:

1. In ocular syphilis, mercury, singly, acts nearly always; iodide of potassium, singly, never acts.

2. In general syphilis, mercury, alone, acts nearly always, and on all the accidents; iodide of potassium, alone, only acts on certain accidents and in an inconstant manner.

3. In ocular and general syphilis, mercury, alone, may serve as a test to fix the etiological diagnosis.

4. Mercury, alone specific in syphilis, is in the meantime a poison of the organism, especially of the nervous system; whence the gravity of nervous syphilis.

5. Iodide of potassium, as a counter poison to mercury, is frequently indicated in syphilis to eliminate or make tolerable the mercury.

6. The iodide acts, moreover, on lymphatism and on rheumatism.

7. Severe syphilis is only affected by mercury alone, or in combination with iodide.

Saturation and poisoning (salivation) by the mercury are the formal indications for the iodide of potassium.

He prefers to administer mercury by injections into the buttocks. He uses the soluble salts of mercury, and preferably the cyanide. He dissolves this in the proportion of 1 to 200 of water and glycerine with a slight addition of cocaine. A medium dose of this is one-half centigram, and this should be repeated daily for from four to nine days, and then three times a week. If diarrhea supervenes, the injections should be suspended. The treatment, with occasional interruptions, should be continued two years at least, and even three or four in subjects in the decline of life.

Darier (30) gave preference to the injection of soluble salts of mercury, especially to the cyanide, when mercurial treatment is required in ophthalmology. He employed them largely diluted, and repeated them every day or every other day, according to indications. When the injections were not practicable, he used inunctions. He sometimes used the "massive injections of insoluble salts of mercury" in cases which had already had a certain amount of mercurial treatment and were tolerant of it.

Intra-ocular injections were especially indicated in serious affections of the vitreus, deep-seated traumatic infections, advanced sympathetic ophthalmitis, grave syphilitic troubles

which have resisted both general treatment and sub-conjunctival injections.

Sub-conjunctival injections have numerous indications: (1) they act as the most powerful and prompt means of practising antisepsis in traumatic and operative infection, in infective ulcers, and abscesses of the cornea with hypopyon; (2) they have a strong, resolutive action on torpid, parenchymatous keratitis, on choroidal exudations, and on plastic iritis when no well-marked nervous stasis is present; (3) as an antisyphilitic, their action on the ocular manifestations of syphilis in all its stages is rapid and sure.

The principal contra-indication of sub-conjunctival injections is where there exists a vascular engorgement of the pericorneal network. The resorption is then very slow, and there is often violent reaction which is more alarming than dangerous.

Gutman had tried Darier's method in fifty cases without success. In a case of severe specific irido-choroiditis, it made the disease much worse, and in another case hypopyon supervened.

Chibret had used sub-conjunctival injections of cyanide of mercury in ocular syphilis, especially in interstitial keratitis, with no question as to their efficacy. In suppurative diseases of the cornea and other diseases he had had variable results.

Hess and Bach, in experiments with these injections of corrosive sublimate in rabbits, had not found the slightest effect on the course of corneal ulceration.

Deutschmann, who had made over 2,000 sub-conjunctival injections of corrosive sublimate, showed himself a partisan to this method. He had found them useful in both specific and non-specific diseases of the eye, though more so in the former. In parenchymatous keratitis and acute iritis they are very beneficial. In corneal ulcers they are preferable to the actual cautery. These injections have the special merit of shortening morbid processes. But in post-operative suppuration they are not the best means of controlling the situation. They are also without effect in affections of the optic nerve.

Dufour affirmed the good results obtained by sub-conjunctival injections. He said it was probable that the quantity of corrosive sublimate necessary to be effective was much less than had been believed.

Darier replied that, contrary to Hess and Bach, mercury had been found in the eye by electrolysis in the experiments of Bonhi, Gallemaerts and Joly. The experiments of Hess demonstrated

only that rabbits are refractory to these injections. From a clinical point of view, they have given good results to those who have used them on a large scale.

Valude (36) desired to add one or two recent observations to the facts he had published during the past year on the use of antipyrin in certain forms of optic-nerve atrophy, and to mention a case published by Dr. Bistis, of Constantinople, where antipyrin had succeeded in ameliorating an optic-nerve atrophy which had resisted a variety of treatment.

The antipyrin should be given by hypodermic injections, using two grams of a saturated solution (one gram to two grams of water) every two days. This treatment is not suited to all forms of optic atrophy. It is only indicated in those which are consecutive to descending neuritis and which have their origin in meningitis or pachy-meningitis, localized or general. In these cases the amblyopia has been preceded and is accompanied by headaches and there were signs of optic neuritis before the atrophy.

The treatment by antipyrin suppresses the headache and increases the acuity of vision when all other treatment has failed. The most useful increase of the visual acuity is for near work.

### SURGICAL THERAPEUTICS.

Snellen (1) read a paper recommending the covering of all operative and accidental wounds of the cornea and sclerotic by conjunctival flaps. In cataract extraction, Graefe's knife should be used and a conjunctival flap made. After enucleation the suturing of the conjunctiva favors healing. In wounds of the cornea or sclerotic, conjunctival flaps should be cut and stretched over them by sutures. After strabismus operations the conjunctiva should be made to cover the wound.

Knapp (2) read a paper on 600 cases of cataract extraction, which was listened to with great interest. He said that during the last four years he had performed 630 cataract extractions, but 30 of these being so complicated that a good result was impossible, were excluded from the report. Among the 600 extractions 52, or 8.6 per cent., were combined with iridectomy, indications for the latter being: (1) pathological condition of the eyes; (2) a manifest tendency to prolapse of iris, that is to say, the impossibility of obtaining a central pupil and maintaining it in its place during the eye movements, or while carrying the patient from the operating chair to the bed, and for fifteen or twenty minutes after-

ward; (3) accidents occurring in the course of the operation. The visual results were good in 49, bad in three cases.

Out of the other 548 operations of simple extraction, *retention of the iris by constriction* took place in 55 cases (10.03 per cent.), a condition which was treated by operation (iridectomy, ablation with the aid of a galvano-cautery,) in 14 cases, that is to say, in 25.5 per cent. of the number of cases of incarceration of the iris, or 2.5 per cent. of the total number of extractions, among which were two cases of extractions with iridectomy. Among the 55 cases the result was good in 49 ($\frac{20}{70}$ in 7 cases), fairly good in 2, loss of eye in 2, and loss of both eyes in 2. In one of the last the eyes were degenerated, and the other presented an extremely marked rheumatic diathesis.

Among the 600 cases of extraction, he performed 403 operations for secondary cataract, that is, 67 per cent. Almost all consisted in discission with a knife needle. The reason for performing so many secondary operations was that he wished to give the patients the greatest possible visual acuity and to make it permanent. He had done this operation so often that he regarded it as almost wholly free from danger. In the present series of cases, visual acuity diminished a little only in eight or ten, but in one case the eye was completely lost in consequence of acute glaucoma, which supervened while the patient was returning to his home, which was situated at some distance from New York. The nature of the disease was not recognized, and the patient was treated by instillations of atropine. This was the second case of that kind which had come to his knowledge, but these two were the only cases of loss of the eye in at least 1,500 operations of secondary discission.

Acute glaucoma is an inherent consequence of discission; but it can invariably be cured by myotics, or iridectomy, and possibly by paracentesis of the anterior chamber. Among the 403 operations mentioned in this report, it occurred in twelve cases, or 3 per cent.; in four of these it yielded to the application of eserine; seven were healed under the influence of iridectomy, and the twelfth was the one to which he had referred as resulting in loss of the eye.

Little, of Manchester, related his experience of the past five years, which included 428 extractions, of which 322 were with iridectomy and 106 without. In the latter he had four failures, of which two were from suppuration and one from glaucoma. In

ten cases, two of which were lost, as stated, there was prolapse of the iris. In seven of these the iris was excised without bad effects and in one the prolapse was not touched.

Panas spoke of the treatment of secondary cataracts (secondary opacities of the capsule), and said that he had practised the secondary operation, by extracting the capsule, for more than twenty years, without causing any primary or consecutive complications, and with the result of raising the vision from $\frac{1}{15}$ to 1. He had twice seen glaucoma after simple extraction of cataract.

Swanzy, of Dublin, said he was an advocate of the combined method, the iridectomy being small. In 200 consecutive cases he had had but four of incarceration of the iris in the wound, or 2 per cent. He would be glad to adopt the simple method when Prof. Knapp had reduced his cases of iris prolapse and incarceration to 1 per cent., or, at any rate, to less than 2 per cent. Iridectomy had, moreover, no disadvantages beyond the unimportant one of a very slight disfigurement, which neither the patient nor his friends often discover.

Noyes said that, apart from cases in which there was (1) undilability of the pupil, (2) the presence of a large amount of cortex, and (3) increased tension of the ball, he preferred the simple operation. His incision was almost a semicircle of the cornea, and the capsulotomy was in the form of an inverted T. He used atropine, both before and after the section, thus preventing adhesion of the iris to the capsule. The disadvantages of iridectomy in extraction were: (1) the additional steps added to the operation; (2) the painfulness of the operation, in most cases, of excising the iris; (3) the occurrence of incarceration of the iris or capsule in no small number of cases.

Hansen-Grut, of Copenhagen, said that they had all practised what Prof. Knapp had described. But all could not keep their patients sufficiently long to perform the discission, which he advises not to be done till three weeks or more after the extraction. Knapp seemed to have more obedient patients. On the whole, they would do well not to go far into the discussion of methods of extraction. Every experienced operator believed his own method to be superior to that of any other man, and would not be taught. The old practitioner will not benefit by discussion, and the younger operator will only be puzzled.

Critchett, of London, said he was in accord with Swanzy. To avoid the pain of iridectomy, to which Noyes had alluded, he had

adopted the plan, since the first introduction of the use of cocaine, of passing, after the section is made, a few drops of a fresh, sterilized solution of cocaine directly into the anterior chamber, by means of a curette. At the end of a minute or two the iris is anesthetic, and can be excised without pain. No ill effects had ever followed. In discission of the capsule, he preferred a horizontal incision.

Teale, of Leeds, said that, having been for the past twenty years an advocate of the simple extraction, it was his conviction that, with a suitable section, such as he had described in his Bowman lecture in 1893, the simple involves no difficulties from which the combined operation is free; that it has technical advantages over the latter; that in its average results it is equal to it, and in its perfect results superior.

Snellen thought that statistics could not decide the comparative value of different methods of extraction of cataract. The choice of patients, the skill of the operator, the ability of assistants, the quality of instruments, and other circumstances must be taken into consideration. In the simple operation, he never replaces a prolapsed iris, but excises it at once. To prevent prolapse of the iris, pilocarpine should be applied during the operation, the eye must be thoroughly anesthetic, no speculum should be used, and the section should be large. The capsule may be needled two weeks after the extraction, when it is easily done.

Knapp, in replying, said that it was on the strength of his recent experience that he maintained that the simple operation is not only the safest but the best operation. Swanzy credited him with 10 per cent. of prolapses, but only fourteen cases, or 2.5 per cent. of all, had required operative treatment. The others recovered spontaneously, some with persistence of a small unirritative protrusion, not seriously interfering with sight, and in the others the prolapse disappeared. The eye, after a combined extraction, was, by the frequent incarceration of invisible iris and capsule in the scar, less resistant to obnoxious influences than when the iris was preserved. He practised secondary discission in about two-thirds of his cases, and few patients objected to it. If successful, it left an ideal eye. The discission can be done at any time, without notable reaction, if the pupil is free from inflammatory products.

(*Concluded next month.*)

## MEDICAL SOCIETY OF THE COUNTY OF ERIE.

Reported by FRANKLIN C. GRAM, M. D., Secretary.

The seventy-fourth annual meeting of the Medical Society of the County of Erie was convened in the rooms of the Buffalo Academy of Medicine, Tuesday, January 8, 1895.

The president, Dr. Wm. H. Gail, of East Aurora, opened the proceedings shortly after 10 o'clock, and called for the minutes of the last semi-annual meeting; also those of the special meeting held August 4, 1894, both of which were read and adopted.

Dr. Geo. W. McPherson, from the committee on membership, reported favorably upon the applications of Drs. N. Victoria Chappell, Albert H. McBeth, G. B. Hepp, Chas. A. Clements Wm. G. Bissell and A. T. O'Hara. They were unanimously elected as members.

Applications for membership were received from Drs. Clara E. Bowen, Evangeline Carroll, John V. Woodruff, Walter N. Kidder, Hiram A. Kendall, Frank H. Field, R. L. Lounsbury, Thomas B. Carpenter, Homer J. Grant and Fred H. Milliner. Referred to the committee on membership.

The secretary read a letter from Dr. S. W. Wetmore and Dr. Mary B. Wetmore, in which they stated that on their removal to California they resigned as members of this society, but having returned they asked to be reinstated. They had previously been members for thirty and fourteen years respectively.

On motion of Dr. Van Peyma they were reinstated without being required to pay an initiation fee.

The president read his annual address.

Reports of committees were then in order. Dr. J. F. Krug submitted the following:

At the last annual meeting of the society, I was elected chairman of the board of censors. I was not present at the meeting and first learned of the fact through the Buffalo Medical Journal. I have not been in my usual health for the past year, was unable to attend to my own business, and should not have accepted the office had I been present at the meeting. For the same reason I have never called a meeting of the board of censors. I did not resign, believing it to be better policy to continue than to leave the office vacant.

I have, however, upon the request of physicians, caused the arrest of several persons for having violated the law regulating the practice of medicine. Two of them were convicted; one was sent to the work-house, as he was not able to pay a fine, and on the other sentence was

suspended. The last one whom I had arrested was a Chinese, who could not be found when his case came up for trial. I have been informed that he has left the city. He gave bail for his appearance when wanted for trial. The bail is in the hands of the district attorney. A number of other violations have been reported to me, where recent graduates in medicine have been unmindful of the present law.

A vote of thanks was tendered Dr. Krug for his labors, and an order for $25 was directed to be drawn in his favor to cover the expenses which he had incurred in his prosecutions.

The secretary read the resignation of Dr. A. L. Benedict from the board of censors. The resignation was accepted.

Dr. W. C. Callanan, librarian, submitted the following:

I herewith present my annual report for the past year. As you are aware, the library is situated in the building of the University of Buffalo, where it is conveniently located in pleasant surroundings. The librarian of the university, Miss Chappell, carefully attends to this library, and has a record of all the works contained therein. A request for any volume is cheerfully granted. Whilst the library is small as to the number (262), the variety of subjects contained (43) makes it a valuable one for reference.

Its works are divided as follows: On philosophy, 1; statistics, 3; dictionaries and encyclopedias, 5; lectures, 1; periodicals, 110; pathology, 12; practice, 17; insanity, 1; neurology, 11; ophthalmology, 2; respiratory organs, 2; digestive organs, 2; genito-urinary surgery, 3; obstetrics, 7; medical jurisprudence, 4; gynecology, 1; orthopedics, 1; dermatology, 7; pediatrics, 3; infectious diseases, 4; monographs, 4; microscope, 1; bacteriology, 3; urinary analysis, 1; history, 1; anatomy, 1; histology, 4; philosophy, 2; hygiene, 1; public sanitation, 1; materia medica, 5; regional anatomy, 1; general surgery, 11; bone surgery, 2; tumors, 2.

I enumerate the above to show the wide range of subjects that this library covers. With the advance of medical science many new works should be added. The committee appointed at the last meeting to solicit from members donations of money, books or anything of an historical nature pertaining to the history of medicine or of the society, have sent out a circular with the call for this meeting. I hope that the members will respond liberally and thus make this library a mecca for medical knowledge.

In conclusion I would recommend that a book be purchased in which all the names of the deceased members of the society, or as many as can be obtained, should be placed, together with any history or biography. Thus could be formed what might be termed an honor roll, as some of the men who have been members of this society, and who have died, were among the foremost in the profession.

The special committee, appointed for the purpose of entertaining the delegates to the Central New York Medical Association, which met in Buffalo in October, 1894, reported that it did not need the entire appropriation which was granted at the June meeting. The visitors were entertained at luncheon at "The Genesee," at an expense of $42. The new delegates from Erie county who attended that meeting were: Drs. Eli H. Long, F. W. Bartlett, H. G. Bentz, H. T. Carter, A. L. Benedict, Wm. C. Phelps, F. C. Gram, Lillian C. Randall and Jane W. Carroll.

Dr. H. R. Hopkins, from the committee on hygiene, made a verbal report, in which he stated that there had been more activity in hygienic matters during the past year than during the twenty previous. He stated that although no regular meetings had been held, yet its members had worked with a similar committee from the Academy of Medicine, and the results achieved were familiar to all.

The treasurer, Dr. Edward Clark, submitted his annual report, which showed a balance of $287.58 in the treasury. The report was submitted to an auditing committee, composed of Drs. C. A. Ring, S. S. Green and W. W. Potter, who reported that all the items agreed with the vouchers, and recommended that the report be adopted. They also recommended that the usual sum of $50 each be paid to the secretary and treasurer for services during the past year. Both recommendations were adopted.

On motion the secretary was directed to confer with the council of the Buffalo Academy of Medicine, with a view to secure uniform rates of rent for the use of the Academy's rooms whenever required by this society.

The president appointed the following committee to nominate officers for the ensuing year: Drs. Krauss, Hopkins, McPherson, P. W. Van Peyma and Ira C. Brown. The committee reported as follows:

For president, Dr. Frederick W. Bartlett, of Buffalo.

For vice-president, Dr. Justin G. Thompson, of Angola.

For secretary, Dr. Franklin C. Gram, of Buffalo.

For treasurer, Dr. Edward Clark, of Buffalo.

Board of censors—Dr. John B. Coakley, chairman; Drs. Marcel Hartwig, Eli H. Long, Francis T. Metcalfe and Henry Lapp.

Committee on membership—Drs. Geo. W. McPherson, T. M. Johnson and H. E. Hayd.

Delegates to the Medical Society of the State of New York—Drs. J. H. Pryor, Wm. C. Krauss, M. A. Crockett, F. C. Gram, C. C. Frederick and G. W. McPherson.

On motion of Dr. Hopkins, the secretary was directed to cast one ballot for the nominees. This being done the president declared them duly elected.

Dr. Clayton M. Daniels read a paper on Two Peculiar Cases of Hernia. (See page 395.)

Dr. W. H. Woodbury read a paper on Myxedema, its Diagnosis and Treatment, and presented five cases to the society, giving a detailed account of each, and allowing the members to make any personal inquiries or examinations they desired.

Dr. Wm. G. Bissell gave an account of the bacteriological examination in the diagnosis of diphtheria, in a carefully prepared paper, presenting various cultures and mountings, which the members were given an opportunity to examine under the microscope. He gave an especial account of the methods pursued in this particular by the health departments of New York and Buffalo, giving a synopsis of the results in the latter city.

Dr. George Abbott expressed his gratification at the results of this meeting and of the personal benefits he had derived from listening to the scientific part of the program. He stated that, as a remarkable coincidence, he had that morning discovered a piece of diphtheritic membrane coughed up by one of his patients thirty years ago, and which, together with a memoranda, had been concealed in one of his books during that period. He volunteered to give Dr. Bissell a portion of it for experimental purposes, and the offer was accepted with thanks.

Dr. Hopkins stated that seldom had such an array of living subjects been presented by an essayist before this society.

Similar remarks were made by several other members, after which the president extended the thanks of the society to the essayists for their valuable contributions.

Dr. Rochester spoke of the practical benefits he had derived through being enabled to avail himself of the bacteriological examinations made by the Health Department in suspected cases of diphtheria, and also gave a report of a case in which he had used antitoxin with marked benefit.

Dr. Van Peyma invited all out-of-town members to join the Buffalo Academy of Medicine, or, at least, attend its meetings,

since the facilities for reaching most of the country towns are now quite good.

Dr. Gail then introduced the newly-elected president, Dr. Bartlett, to the society. On taking the chair, Dr. Bartlett thanked the members for the distinction shown him, and stated that, as a remarkable coincidence, this was his seventieth birthday, and he was just rounding out his forty-first year of practice. He would endeavor to promote the interests of the society during his incumbency of the office of president and administer its affairs to the best of his ability.

On motion of Dr. Krauss, a vote of thanks was tendered the retiring president, and the society adjourned shortly after 1 P. M.

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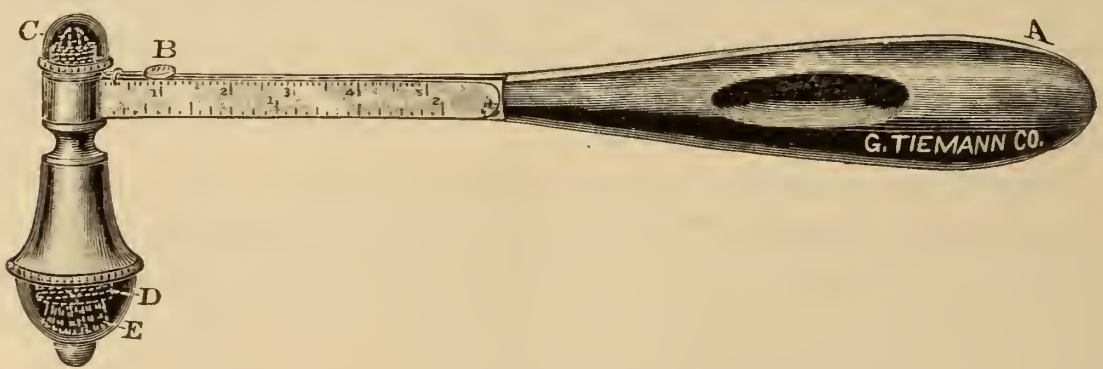
## New Instruments.

### A NEUROLOGIST'S PERCUSSION HAMMER.[1]

By WM. C. KRAUSS, M. D., Buffalo, N. Y.

The neurologist requires, as a rule, but very few instruments in conducting an examination of the nervous system, and of such the percussion hammer is most often used. To make the examination thorough and detailed, an office outfit is indispensable, but in the majority of cases, the simplest means are used to ascertain the condition of the sensory and motor conductors, the reflexes, strength of the hands, legs, and other similar conditions.




Having had occasion to make constant use of the hammer in my private and hospital practice, I have devised some improvements and modifications which widen the field of its usefulness, thus making it more serviceable to those engaged in neurological research.

The hammer is constructed after the French pattern, having a heavy metallic head fixed to a flattened oval handle seventeen centimeters long. As a hammer it may be used to examiue the tendon

1. Exhibited at the American Neurological Society, Washington, D. C., June 1, 1894.

and muscular reflexes, to percuss the head, spine, superficial nerves, and the like. The handle (*a*) being of hard rubber becomes warm on friction, while the head being of metal remains cold, thus offering the means of examining the sense of heat and the sense of cold, fulfilling the requirements of a thermo-æsthesiometer.

The cap (*c*) when removed discloses a triangular spear head, about half a centimeter long, while at the other end of the hammer-head is the rounded rubber point; the two ends furnishing, therefore, a sharp and a dull point for examining for anesthesia or hyperesthesia. The advantages of this arrangement over the ordinary way for examining the sensibility of a patient—namely, with a pin or needle, are, that the patient is unaware of the intent of the examiner and does not become hyper-sensitive as soon as the examiner produces a pin; the spear point is not liable to penetrate through the epidermis; the examiner can strike or touch the skin with nearly uniform force, and knowing the sharpness of the point, can better judge whether abnormalities of sensation are present or not.

The spear is divisible into two portions, one securely fixed upon the hammer-head, the other movable upon a metallic slide, upon which is engraved the metric and English scales. This arrangement furnishes an excellent æsthesiometer and is as accurate and convenient as any on the market.

Replacing the cap (*c*) and removing the cap (*e*) a camel's hair brush is exposed, giving a soft surface, while the metallic cap (*c*) gives a hard surface for testing various forms of anesthesia.

It was the intention of the author to have a small ophthalmoscope placed in the handle and then every case of nervous disease, either of the brain, spinal cord or peripheral nerves, could be thoroughly examined with this one instrument.

The hammer is conveniently carried in the pocket and has been of much service to me.

382 Virginia Street.

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Acute Tonsillitis.—Salicylate of soda is recommended as little less than a specific in acute tonsillitis. It should be given as early in the attack as possible, and in sufficient doses to cause ringing in the ears. Fifteen grains every three hours will usually cause this effect, when the dose may be diminished to ten, and then to five grains at the same intervals. It should be continued a day or two after disappearance of the fever.—*North Carolina Med. Jour.*

# Abstract.

## RULES FOR THE PREVENTION OF TUBERCULOSIS.

Comprehensive and efficient means should be adopted for the prevention of tuberculosis. I will recommend the following:

1. Educate the public to a proper understanding of the communicable character of tuberculosis. Teach the people how they can avoid contracting the disease themselves and how they can prevent transmitting it to others.

2. The promiscuous expectoration of consumptives should be prohibited. The sputum should be received into a 10 per cent. solution of carbolic acid, or an acid solution of bichloride of mercury, 1 to 1000. If at any time this be impracticable, the sputum may be collected on paper napkins or handkerchiefs, which must be burned before they become dry. Under no circumstances should a phthisical patient be allowed to spit on the floor or on the streets.

3. Let every physician employ systematic bacteriologic examination for the early diagnosis of the disease, and let us inaugurate compulsory registration of all cases of tuberculosis.

4. It should be made compulsory to have careful and thorough disinfection of all houses, apartments, penal and reformatory institutions, carriages, street and railway cars, steamships, theaters, churches, and the like, which have been exposed to infection from phthisical patients.

For disinfection of rooms I would recommend sulphur acid gas, obtained by burning one ounce of sulphur to every ten cubic feet of space, chlorin gas to saturation. Shut all the doors, windows and crevices for four hours, then let in the fresh air and scrub the walls, floor and articles of furniture with the acid bichloride solution (bicloride of mercury, ʒ ij; tartaric acid, ℥ij to the gallon of water, or ʒ ij each of $HgCl_2$ and permanganate of potassium to the gallon. Remove all wall paper if it cannot be washed or painted. Thoroughly boil or steam all bedding, carpets, curtains, and the like, for at least one hour.

5. Under no circumstances should the stools of tuberculous patients be emptied into sewers until they have been thoroughly disinfected. The intestinal glands are frequently implicated in tuberculosis, and the dejecta often teem with bacilli; therefore, all

discharges should be received into a solution of eight ounces of carbolic acid to the gallon, or four ounces of chloride of lime to the gallon of water.

6. Enact regulations prohibiting tuberculous individuals from following vocations that may expose others to the danger of infection. The sputum may dry on their beards or clothing and then be disseminated. For the same reason, consumptives should avoid kissing, or even hand-shaking, to protect those near and dear to them. All dishes and drinking cups should be used by the patient exclusively, and should never be mingled with those in use by other members of the family. The promiscuous use of public drinking cups in schools, cars, streets and churches cannot be too severely condemned, as contagion is possible from this practice.

7. Tuberculous mothers should not nurse their children. In fact, consumptive people should not be permitted to marry.

8. There should be established careful scientific examination, under city and state control, of all milk, meat and other articles of food sold. All animals suffering from tuberculosis, anthrax, septicemia, glanders, cattle plague, sheep pox, swine plague, foot and mouth disease, acute pneumonia, actinomycosis, dropsy and rabies should be killed and at once *cremated.*

9. Consumptives should always be isolated and there should be established, under state control, public hospitals and sanitaria for the segregation and isolation of the consumptive poor, where they could live under the best hygienic laws, receive proper food and judicious medicament.

10. All persons having died of tuberculosis should be at once wrapped in sheets wrung out of bichloride solution, and cremated as soon as practicable. If this be not possible, then they should be buried with quicklime, as the bacilli do not die with their host, but have been found in cemeteries from two to twenty-five years after inhumation.

Is it not our duty to prevent the ravages of tuberculosis and thereby save over 150,000 lives annually in the United States? Are we not bound by our obligations to ameliorate suffering and prevent loss of life, and this can be accomplished by isolation, proper hygiene and disinfection. That tuberculosis is contagious —even from man to wife—no one but the ancient, non-progressive physician will deny.—*Dr. Winslow Anderson in the Journal of the American Medical Association.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. FEBRUARY, 1895. No. 7.

## ANTITOXIN IN BUFFALO.

Two physicians have recently fallen victims in this city of that dreaded and terribly destructive disease, diphtheria. The prominence of these professional men, and the circumstances under which they contracted the malady, lend additional sadness to their deaths. Both contracted the disease from patients whom they were serving, and each life was sacrificed while performing a noble service to humanity.

It is manifestly unfair to charge antitoxin with failure in cases where it has been employed at the eleventh hour and patients have died. During the illness of one of the physicians referred to, it is quite true that antitoxin was administered, but it is equally true, unless we are misinformed, that the first administration was made within fifteen hours of death. There is no reasonable probability that the remedy either hastened or delayed dissolution. On the other hand, there is every presumption that incurable toxemia existed at the very moment of its employment, and that no antidote, no matter how potent, could arrest its progress. It would be quite as sensible to expect success from the administration of an antidote to any irritant or lethal poison after it had permeated all the "natural gates and alleys of the body."

In view of the recent investigations with reference to the serum treatment of diphtheria, it is difficult to escape the conviction that both of these lives might have been saved had the antitoxin treatment been adopted early in their progress. No stronger argument can be made for the manufacture of the blood serum by local enterprise than is presented in the deaths of these two prominent young physicians.

We are pleased to observe that steps have been taken looking to its cultivation by the health commissioner, Dr. Wende. We

JOHN WENDE, V. S. T. . DR. WILLIAM G. BISSELL. DR. THOMAS B. CARPENTER.

ANTITOXIN IN BUFFALO—BACTERIOLOGISTS INOCULATING A HORSE.

*From the Illustrated Buffalo Express.* *Copyrighted, 1895. By Geo. E. Matthews & Co.*

understand that, through his solicitation, a number of horses have been supplied and inoculations have already been made. These steps have been taken without expense to the city, the necessary funds and animals sufficient to make a start, having been furnished through private contribution.

Other cities have not hesitated to appropriate large sums of money for the purpose of carrying on the manufacture of antitoxin, and if further investigation should support the already strongly rooted belief in the preventive efficacy of the blood serum, it is difficult to see how Buffalo can refuse to do the same. It seems to be pretty well established already that its effectiveness is in direct ratio to its early employment, and it is hard to ask a humane profession to stand helplessly at the bedside of dying patients deprived of the one remedy, that, of all others, seems to offer the most certain relief.

If this remedy is to be successfully employed at all, it must be applied early, as we have before stated, and, in order to use it sufficiently early in diphtheria to warrant expectation of cure, a supply must be constantly accessible to all physicians who are called upon to treat this disease. We are aware that antitoxin has not yet passed its experimental stage, but results are already sufficiently promising to justify a further vigorous prosecution of these experiments on the highest plane of scientific work. In the further pursuit of these experiments we do not feel willing that the City of Buffalo shall stand idly by and not contribute her full share to the general result, whatever it may finally prove to be.

In interesting relationship to this subject we publish herewith a picture showing the method of inoculating horses with diphtheria serum, in operation by the health department.

In the *Buffalo Illustrated Express* for January 20th was published an excellent description of the method of obtaining the toxin, and the manner in which animals are rendered immune. We reproduce it here as a matter of current interest :

The toxin with which the animal is inoculated is secured by cultivating the diphtheria germs. The bacteria are gathered from a particularly virulent case of diphtheria, and are planted in fluid bouillon, contained in a glass dish of peculiar shape, which is kept at a temperature of about 37 centigrades of heat (equal to 98 or 98½ F., or the normal temperature of the body), and over which a current of air is constantly circulating. In a month or less the toxin is fully deve'oped, and from the nature of its culture is of intense potency. The whole is

then put in a Pasteur-Chamberlin filter, and the bacteria are separated from the bouillon culture. The strength of the toxin in the filtrate is next ascertained by testing it upon some animal of known susceptibility, usually a guinea-pig. The test is made by finding how much of it will kill an animal of given weight in a given time. It has been demonstrated that one-tenth of a cubic centimeter of bouillon-cultured toxin will kill a guinea-pig weighing 500 grammes in forty-eight hours. Having ascertained the precise strength of the toxin, the next move is to grow the antitoxin, and for this purpose a healthy animal, preferably a horse, not less than five nor more than ten years old, is inoculated with the diphtheritic poison. The first dose is a half to one cubic centimeter (about one-third of a teaspoonful), injected subcutaneously in the horse's neck, and repeated in constantly-increasing doses at intervals of five or ten days, according to the effect upon the animal. The process converts a strong horse into a sick one, and inoculation and subsequent care and bleeding should be under the superintendence of a competent veterinarian. At the points of injection there is considerable swelling and more or less edema, the animal refuses food, has a heightened temperature and acts generally like a very sick horse. As soon as the temperature is reduced and the animal begins to recover, more toxin is injected. Too much at any time would kill him, but by a system of gradual increase the last dose may be 300 or 400 times stronger than the first, when he is ready to yield his blood for the serum that is in it. The time occupied in the complete immunization of the horse from the disease varies from four to nine or ten months. The average is about six. His blood is tested, and when it is found to possess strong antitoxic power, the jugular vein is tapped and as much blood withdrawn as the veterinarian deems safe. Then, by a simple method, the efficiency of the serum of the blood is carefully and accurately determined, when it is ready for distribution, so many centimeters to so many pounds of diphtheritic patient, for the antitoxin dosage is so computed.

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## TOPICS OF THE MONTH.

THE third annual report of the Sheppard Asylum, a hospital for mental diseases, located at Towson, Baltimore Co., Md., has had under treatment 117 patients during the past year, the daily average under care being sixty. During the year fifty-seven patients have been discharged, fourteen of whom have recovered and eighteen much improved or improved. Nine deaths have occurred at the hospital during the year, two of which were in a hopeless condition when admitted.

An interesting fact recorded in this report is, that during the

year twenty-three patients have applied voluntarily for treatment and have been admitted to the hospital. Of these, eight were cases of alcoholic or narcotic addiction. The others were suffering in a greater or less degree with active mental disturbance, varying from incipient melancholia to chronic delusional insanity or paranoia.

The report is handsomely illustrated with views of the buildings and grounds. This institution is presided over by Dr. Edward N. Brush, who is physician-in-chief and superintendent, and who is to be congratulated upon the result of another year's work so interestingly recorded in this pamphlet.

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In these columns we have before referred to the fact that an attempt is making in certain quarters to substitute the word celiotomy for that of laparatomy as a surgical term. We hold to the opinion, as heretofore expressed, that both being wrong it is better to maintain the expression, abdominal section, until a better term is found,—one more correct, at least, than either of the two referred to.

Under the lead of Dr. Robert P. Harris, of Philadelphia, the members of the American Gynecological Society, in large numbers, have adopted the substitute and appear to be seeking to incorporate it permanently in the literature of medicine. Many younger men also, not members of the society referred to, are easily following its lead. The argument showing its error, etymologically and surgically, has been frequently referred to in journalistic print, but nowhere have we seen it more effectively set forth than in a letter by Dr. R. Stansbury Sutton, of Pittsburg, published in the *New York Medical Journal*, December 29, 1894.

Dr. Sutton, himself a member of the American Gynecological Society, says:

"Laparotomy" as a surgical term is wrong, but it should be borne in mind *that technical terms acquire validity from long usage, often in spite of wrong etymology.* If, therefore, it can be shown that the term cœliotomy is also an incorrect term etymologically, we do not improve matters by rejecting for it the term laparotomy. My Greek is very rusty; it is thirty-two years since I was graduated at old Jefferson College, at Canonsburgh, Pa., but I will try with what Greek is left these two words, "laparotomy" and "cœliotomy," and the reader may decide for himself on the merits of the case.

*Lapara* in Greek is derived from an adjective which means *slack* or *loose*, and in the human body is applied to the *flank*, meaning the loose

flesh between the ribs and the pelvic bones or the hip. In military parlance it is a technical synonym for our word *flank*.

From *lapara* and the verb *temno*, to cut, is derived the word laparotomy. Literally it means to cut the *flank*. *It has acquired validity from long usage*, but is etymologically incorrect.

*Cœlia* is the Latin, from the Greek word *koilia* derived the Greek *koilos*, which means *hollow*, and in the human body means a *hollow viscus*, and was applied to the abdomen, heart, uterus, intestines, thorax and stomach, etc.—any cavity of the body. Hippocrates applied it to the socket of the hip joint. The Greek adjective *koiliacus* was used to refer to anything contained in the abdomen or in any of its viscera—fæces, for instance. From this word *koilia* and the verb *temno* is derived the word cœliotomy. It means literally to cut open a *hollow viscus*, which the abdomen is not. It is no better than the term laparotomy, *and lacks the validity from long usage* which belongs to laparotomy. I believe the English term "abdominal section" is free from objection.

The importance of speaking and writing correct medical English and all derivative terms is sufficiently great to warrant this extended reference to a somewhat worn subject.

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It is three years since the present health department took office, hence a comparison between the death rates under the present regimé and those of its predecessor will be in order.

In 1891 the death-rate was 23.46 per 1,000, which was the last year under the old charter; in 1892 the rate was 19.98; in 1893 it was 19.03, and in 1894 it was 17.76.

This reduction has taken place during a period in which the city has been steadily and largely increasing in population year by year, and endangered by surrounding and threatened epidemics. In spite, too, of the fact that typhoid fever prevailed as an epidemic during the months of February, March and April, 1894, in which period as many as a hundred cases were reported in a single day, that year shows the largest decrease in death rate. The cause of the typhoid epidemic alluded to was early recognized through the bacteriological researches of the department, and prompt measures taken through timely warning to the people, as well as in other ways, to control and limit the spread of this water-borne disease.

These comparisons are not made to cast any reflection upon the personnel of the old system, but to show how efficient the working of the health department has been under the enlarged powers granted in the new charter.

One of the ways in which the death rate has been reduced during the last year was through greater attention given our milk supply, compelling dealers in this commodity to refrain from keeping their milk in barns, near outhouses, and in like unwholesome places. The coolers are now kept in buildings at a distance from water closets and sewers, and are properly trapped and vented in order to prevent all possible contamination.

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In St. Louis a plan is adopted for conveying patients from various portions of the city to the city hospital by means of an electric railway ambulance. According to *The Clinique* a street car with electric motor attachments has been equipped as an ambulance, and is running to all parts of the city in response to ambulance calls at an average speed of twelve miles an hour. We have already called attention to this improvement in these columns and have suggested its adoption in Buffalo.

With a completely equipped system of electric railways, reaching in all directions, and permeating to the most remote points, there seems to be no good reason why this humane plan should not be put in operation. It is not very long since a horse ambulance going at a high rate of speed down our principal business street cost a human life. If electric railway ambulances were adopted, this danger would be obviated, to say nothing of the greatly increased comfort that would accrue in the transit of the sick and injured.

We hope the health department will present this subject with such cogent force to the street railway management as to secure its prompt adoption.

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Medical pronunciation is an important subject to the progressive and polished physician. It is not only pertinent to use correct medical terms, as indicated by our comments in another "topic" in this issue, but it is equally essential to pronounce them properly.

The *Western Reserve Medical Journal* has lately made forceful comment on the subject, as follows:

An unfortunate uncertainty obtains among the profession of this country as to the proper pronunciation of the large class of words whose termination is—*itis*. Many prefer the continental vocalizing of *i*. giving it the sound of English *ē*. The English profession and a very respectable portion of the American profession use the vowel *i* with its long English phonation—*ī*. There can be little doubt of the correctness of the usage of the latter group, so long as it is English we speak and

not German or French. There is absolutely no authority for a continental vocalization of *i* in English speech, for if custom is pleaded in its favor it is easily shown that custom is widely at variance and that "—*ītis*" has more users than "*ētis*." Neither is there any uncertainty among the lexicons, whether medical or general, for with quite remarkable unanimity they give the English phonation. Expressing our sympathy for the adherents of the continental sound, we must needs leave them to their fate.

## Personal.

Dr. Henry C. Buswell, of Buffalo, has recently returned from a two years' visit in Europe, where he has been in attendance upon the clinics in Vienna, Berlin, Heidelberg, Paris and London. Dr. Buswell is adjunct professor of the principles and practice of medicine in Niagara University Medical College, and his colleagues, professorial and professional, united in tendering him a banquet at the Tifft House in this city, on Saturday evening, December 29, 1894. Dr. F. S. Crego was toastmaster, and Dr. John Cronyn made an address of welcome. Dr. Buswell, in responding, thanked those present for the flattering reception they had given him. He reviewed some of the principal clinics, in which he participated, told of the use of the new diphtheritic remedy and the treatment of typhoid fever by the use of the bacillus.

Other toasts were The Medical Department of Niagara University, by Dr. Lothrop; Foreign Universities, by Dr. Pryor; The Academy of Medicine, by Dr. Van Peyma; State Hospitals, by Dr. A. W. Hurd; Canadian Universities, by Dr. H. E. Hayd; Advance in Sanitary Science, by Dr. Ernest Wende, and American Universities, by Dr. H. A. Weed. Letters of regret were read from Drs. Mynter, Tremaine, Frederick, Mickle, Krauss, Renner, Martin and Hunt.

Dr. Percy Bryant has been appointed first assistant physician in the Buffalo State Hospital, to succeed Dr. Arthur W. Hurd, promoted superintendent. This appointment is made from the State civil-service list, and Dr. Bryant is in every way well fitted for and deserving of the place. He is a member of several medical organizations and a companion (hereditary) of the Military Order of the Loyal Legion of the United States, in affiliation with the New York commandery.

Drs. William G. Bissell and Thomas B. Carpenter have been appointed, respectively, bacteriologist and assistant bacteriologist to the health department of Buffalo, subject to the civil-service rules. Their appointments are regarded as especially satisfactory, as these gentlemen have each had special training in the field of bacteriology.

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Dr. L. S. McMurtry, of Louisville, Ky., has recently occupied his new residence at No. 12 St. James's Court. His offices, however, will be continued at 231 West Chestnut street, where he can be consulted on Mondays, Wednesdays and Fridays between the hours of 11 and 1, but on other days only by appointment.

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Dr. Daniel Lewis, of 249 Madison avenue, New York, has changed his consultation hours as follows: Daily from 10 to 1 and by appointment. He has also arranged for the reception of his operative cases in a private hospital near his office, where every convenience is assured to the patients.

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Dr. G. R. Trowbridge who, for several years was assistant physician in the State Hospital for the Insane at Danville, Pa., has returned to Buffalo and established his offices at 1331 Main street. His numerous friends here will welcome him to his old home.

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Dr. A. L. Benedict, of Buffalo, read a paper on the Purely Physical Examination of the Digestive Organs at the annual meeting of the Medical Society of the County of Ontario, held at Canandaigua, N. Y., Tuesday, January 8, 1895.

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Dr. Joseph D. Bryant recently was elected president of the New York Academy of Medicine, vice Dr. D. B. St. John Roosa, whose term had expired. If Dr. Roosa must needs have a successor in this office, Dr. Bryant is in every way worthy of the honor.

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Dr. A. H. Cordier, of Kansas City, Mo., has recently published in the *Journal of the American Medical Association* a paper detailing fifty consecutive intra-peritoneal operations with but one death.

# Obituary.

Dr. M. C. Rowland died suddenly at his residence in Geneseo, N. Y., January 15, 1895, aged sixty-seven years. He had been in attendance upon the installation of the officers of A. A. Curtis Post, G. A. R., on Monday evening, January 14th, and returned to his home about 11 o'clock, when he retired for the night. Soon after midnight Mrs. Rowland was awakened by groans, but before medical aid could be procured her husband had expired.

Dr. Rowland was appointed assistant surgeon of the 61st Regiment, N. Y. V., September 2, 1862, was promoted to surgeon of the same regiment April 14, 1864, and was mustered out with his command July 14, 1865. The 61st Regiment was famous for its service, having first been commanded by Col., afterward Major General, Francis C. Barlow, and then by Col., now Major-General, Nelson A. Miles, United States army. During the winter of 1864 Dr. Rowland performed duty as an assistant in the field hospital of the first division, second army corps. After the war he located in Geneseo, where, by his courtly manners and professional attainments, he soon secured the confidence of the community as a medical practitioner of skill and a man of integrity.

He leaves a widow and two sons, who receive the sympathy of a large circle of friends in their sudden bereavement. The funeral was largely attended on January 18th, and the various civic and military societies, of which he was a member, attended in bodies.

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Dr. Joseph H. Dunnigan, of Buffalo, died of diphtheria at the General Hospital on Friday morning, January 4, 1895. The disease was contracted while he was ministering to a patient suffering from diphtheria, and he was removed to the hospital, where he received every possible attention, under which, for a time, he seemed to improve. He, himself, did not believe that his malady would prove fatal, and in his opinion he is reported to have been sustained by his friends and attending physicians. A supply of diphtheria antitoxin, however, was obtained from New York and, meanwhile, the brave physician had grown worse. When it was suggested to him that he submit to the use of the antitoxin, he readily assented. He rallied a little at first, but died fifteen hours after its administration.

Dr. Dunnigan was born in Greenwood, Steuben county, this

state, in 1864. His family lives near Rexville in the same county. After leaving the public schools in Greenwood, he attended the Canisteo Academy, and from there went to the medical department of the Niagara University, where he was graduated with honors. He was one of the staff at the Emergency Hospital, and later was house physician of the Sisters of Charity Hospital. He was a member of the Catholic Benevolent Legion, Ancient Order of Foresters of America and Ancient Order of Hibernians. He was attending physician to the three last named societies. He occupied an office at the corner of Smith and Elk streets, and had an extensive practice. He had been worn from hard work when he contracted the disease from one of his patients. A father and mother, a brother and two sisters survive the deceased. One of his sisters is Sister Cyril, of the Le Couteulx Deaf-mute Institute on Edward street.

His remains were taken to Rexville for interment.

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Dr. Henry Goldthwaite, of New York, for the past sixteen years resident physician at the Fifth Avenue Hotel, and well known among its frequenters, died in his room at that house Thursday morning, January 3, 1895. He retired the night before apparently in usual health, but about 3 o'clock in the morning a ring came from his room, and a bell-boy found him in great suffering. His son, George, who was at the hotel, and Drs. Pease and Taylor were quickly summoned. He was conscious, however, only a few minutes and died very soon afterward of apoplexy.

Dr. Goldthwaite came of a well-known Southern family. He was born in Mobile on April 13, 1842. His father was Judge Henry Goldthwaithe, of the Alabama Superior Court. His great grandfather, William A. Graham, was governor of Alabama and secretary of the navy. Dr. Goldthwaite's mother was a Witherspoon. One of her ancestors, John Witherspoon, was a signer of the Declaration of Independence and president of Princeton College. The subject of this sketch was graduated from Princeton in the class of 1860. He entered the Confederate army as a private at the breaking out of the war of the rebellion. He was promoted again and again, and served on the staffs of Generals Ledbetter and Forney. He retired at the close of the war with the rank of major. In 1865, he became connected with the firm of Brown Brothers, cotton merchants, of Mobile. Later he studied medicine, and, coming to New York, he was graduated from Bellevue Hos-

pital Medical College in 1876. For several years afterward he was an instructor at Bellevue. In 1878, he became resident physician of the Fifth Avenue Hotel. He was twice married, his first wife being a Miss Tarleton, of Mobile. There were two children by the first marriage. His second wife was Mrs. Caroline C. Munson, of Utica, whose daughter is the wife of Dr. Frank F. Ellenwood, of Attica, N. Y. The doctor was a member of the County Medical Society, the New York County Medical Association, the University Club and the New York Athletic Club. He was also a visiting physician to the City Hospital. The body was taken to his old home in Mobile.

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Dr. David Worthington Miner, of Ware, Mass., died at his residence in that village on Wednesday evening, January 2, 1895, aged seventy-four years. Dr. Miner was one of the best known physicians in his region, and had continued the practice of medicine in the same office for nearly fifty years. He was a brother of the late Dr. Julius F. Miner, of Buffalo, a former editor of the Journal.

He was married in Northampton September 24, 1845, to Mary H., daughter of Joseph and Nancy Warner. Besides his widow he leaves four children, Mrs. Eliza N., wife of Prof. C. E. Garman, of Amherst; Affa S., wife of Prof. C. A. Tuttle, of Wabash College, Crawfordsville, Ind., and Miss Jean Miner and Dr. W. W. Miner, of Ware.

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Dr. Alfred Lebbeus Loomis, of New York, died at his home, No. 19 West Thirty-fourth street, on Wednesday morning, January 23, 1895, aged 64 years. His death was caused by pneumonia and his illness was brief. Dr. Loomis was born in Bennington, Vt., was graduated from Union College in a class of '51, became a student of Dr. Willard Parker, and in 1853 received his degree as doctor of medicine from the College of Physicians and Surgeons. He spent two years as assistant physician on Ward's and Blackwell's islands, after which he established himself, in 1855, in the general practice of medicine in the City of New York. He cultivated the field of internal medicine early in his professional career and soon became authority on diseases of the chest. He has been physician to Bellevue Hospital and Mt. Sinai Hospital and for many years was consulting physician to Charity Hospital, on Blackwell's island. He was professor of medicine in the University of the City of New York for over thirty years. He served for two

terms as president of the New York Academy of Medicine and has been president of the New York Pathological Society and the Medical Society of the State of New York. He was a liberal contributor to the medical literature of the day, some of his larger works being Lessons in Physical Diagnosis; Diseases of the Respiratory Organs, Heart and Kidneys; Lectures on Fevers; Diseases of Old Age; and A Text-book of Practical Medicine.

The curative properties of the air in the Adirondack region in cases of incipient tuberculosis, and its value as a prolonger of life in advanced cases, had an enthusiastic champion in Dr. Loomis, and he was active among those who opposed the extinction of the forests of this natural sanitarium. About twenty years ago it was reported that he went into the southern Adirondacks, where he was cured of lung trouble, after which he began to send his patients into that region.

Dr. Loomis was twice married and is survived by a widow and two children, the latter born of his first wife.

The funeral was held at the Church of the Incarnation, Madison avenue and Thirty-fourth street, on Saturday, January 26th, at 10 A. M.

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## Medical College Notes.

DR. G. FRANK LYDSTON began his third special course in regional surgery at the Masonic Hospital, Chicago, on Monday evening, January 7, 1895, to be continued during every Monday evening until completed. Subjects: Surgery of the Prostate, Bladder and Kidneys, including Calculus; Appendicitis; Surgery of the Rectum and Urethra; and Varicocele. The lectures will be illustrated by special charts and drawings and are free.

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DR. B. MEAD BOLTON, associate professor in bacteriology at Johns Hopkins University, delivered a lecture on Immunity, a Plea for the Establishment of Pasteur Institutes, at Alumni Hall, University Building, Friday evening, January 18, 1895, under the auspices of the faculty of Buffalo University Medical College. The medical profession of Buffalo was invited.

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DR. VIRGIL P. GIBNEY, of New York, surgeon-in-chief to the hospital for the ruptured and crippled, has been appointed professor of clinical surgery in the College of Physicians and Surgeons.

# Book Reviews.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, at its Forty-fourth Annual Session, held at Philadelphia, 1894. Volume XXV. Published by the society. Philadelphia: The Edwards & Docker Co., Printers. 1894.

This society clings to the fashion of having annual addresses delivered before it on surgery, medicine, mental disorders, obstetrics, hygiene and ophthalmology—a practice which, at least, seems questionable. We think it would be much better if the time were spent in the reading and discussion of papers on the several subjects.

Among the valuable contributions to this volume may be mentioned one on Chronic Appendicitis, by Dr. John B. Deaver, of Philadelphia; one entitled A Contribution to the Surgery of the Gall-bladder with a Report of Cases, by Dr. X. O. Werder, of Pittsburg, and another on Intra-nasal Surgery, bearing on the subject of Polyps, by Dr. W. H. Daly, of Pittsburg.

There is in an interesting group of papers on Tuberculosis, by Drs. Cooper, Flick, Hamilton, Mays, Munn and others. Among the curious titles we notice Christian Science and its Relation to the Medical Profession, by Dr. H. H. Longsdorf, of Carlisle, and Should the Journal of the American Medical Association be Used to Promote Quackery? by Dr. S. Solis Cohen, of Philadelphia.

There is an absence of reported discussions in this volume which we think detracts from its value, but the papers published in it are, for the most part, of excellent merit.

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TEXT-BOOK OF ANATOMY AND PHYSIOLOGY FOR NURSES. Compiled by DIANA CLIFFORD KIMBER, Graduate of Bellevue Training School; Assistant Superintendent New York City Training School, Blackwell's Island, N. Y. Octavo, pp. xvi.—245. Price, $2.50. New York and London: Macmillan & Co. 1894.

Anatomy and physiology furnish the foundation for the study and proper understanding of medicine; likewise, it is the basis for the proper instruction of all nurses who submit themselves to that adequate training necessary to fit themselves for the practice of their profession. The proper understanding of anatomy and physiology can only be acquired by the medical student in the dissecting room and laboratory; but the trained nurse does not require the minute details of these subjects that are essential for the practice of medicine.

This is the first attempt, in so far as our knowledge extends, to compile a text-book on anatomy and physiology for the special use of nurses. Heretofore it has been necessary to extract from general treatises that which is applicable—a labor requiring much expenditure of time and no end of trouble.

This author demonstrates her experience in an unmistakable manner through the eminently practical work that she has compiled. Its arrangement is admirable, and she has blended the two subjects with excellent cohesion. She has also illustrated the book with good judgment. The chapters on the tissues are to be specially commended. It is a book that should find its way into the hands of every nurse.

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A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene and the Diseases of Women and Children, by various writers. Edited by Richard Quain, Bart., M. D., London, LL. D., Ed., F. R. S., President of the General Council of Medical Education; Member of the Senate of the University of London; Hon. M. D. Trinity College, Dublin; Hon. M. D. Royal University of Ireland; Fellow, late Vice-President and Senior Censor of the Royal College of Physicians; Hon. Fellow of the Royal College of Physicians of Ireland; Physician Extraordinary to Her Majesty the Queen; Consulting Physician to the Hospital for Diseases of the Chest, Brompton, and to the Seamen's Hospital, Greenwich. Assisted by Frederick Thomas Robarts, M. D., London, B. Sc., and J. Mitchell Bruce, M. A., Aberdeen, M. D., London, with an American Appendix, by Samuel Treat Armstrong, M. D., Ph. D., Visiting Physician to the Harlem, Willard Parker and Riverside Hospitals, New York, etc. New edition, revised throughout and enlarged. Imperial 8vo, in two volumes, pp. 2564, illustrated. New York: D Appleton & Company. 1894.

Twelve years ago, when the first edition of Quain's Dictionary appeared, it at once met the favor of the profession, and the review columns of the medical journals were full of praise for the manner in which the editor had grouped such a vast amount of information and made it available for ready reference. It is asserted, since its first appearance, that more than 33,000 copies have been issued. This, alone, furnishes substantial proof of the value of the work.

The motive of the editor was a desire to place in the hands of the practitioner of medicine, as well as the teacher and student, a means of ready reference to the accumulative knowledge which we possess of scientific and practical medicine. Progress, of late, has been so rapid, literature so voluminous, and much of it so fragmentary and scattered, that the labor of putting it into accessible shape has been enormous. That, however, it has been done most satisfactorily must be apparent to everyone who will critically examine this latest edition.

The work, now, consists of two volumes, and has been entirely reprinted in larger type. The number of pages has been increased from 1834 to 2566, and forty-three new illustrations have been added, increasing their total number to 181.

It is, by far, the most complete dictionary of medicine in two volumes extant. The mechanical execution of the work ranks among the best, and the continued favor of the profession—practitioners, teachers and students,—is already assured.

THE PROCEEDINGS of the Fourth Annual Meeting of the Association of Military Surgeons of the United States. Held at Washington, D. C., on May 1, 2 and 3, 1894. Octavo, pp. 816. St. Louis: Buxton & Skinner Stationery Co. 1894.

The meeting of this association at Washington last year, as recorded in this volume, must have been an excellent one, for the book is full of interesting papers. The president, Dr. N. Senn, of Chicago, as the subject of his annual address, discoursed upon Abdominal Surgery on the battlefield. If our present knowledge of aseptic methods in surgery had been acquired prior to the civil war, many lives could have been saved by promptly opening the abdomen, suturing the visceral wounds, irrigating the cavity and a discreet employment of drainage. It is the province of this association to thoroughly instruct its members on this important branch of military surgery, and Dr. Senn has performed good service in taking the initiative in this matter.

The second paper relates to the transportation of wounded in war, and is written by Dr. Charles Smart, of the army, who was one of the most efficient field medical officers in the second army corps during the war of the rebellion. His paper, as might be anticipated, is both interesting and instructive. But we might go on through the book and make similar comment on many of the papers that it contains. Unfortunately, however, we have neither time nor space in which to do justice to the book.

The association is a well-organized and disciplined body that is doing most excellent work. It will meet in Buffalo May 21, 22 and 23, 1895, under the presidency of Dr. George M. Sternberg, surgeon-general of the United States army. Dr. Albert H. Briggs, surgeon of the 65th Regiment, N. G., S. N. Y., is chairman of the committee of arrangments, which is a guaranty that the association will be amply provided for during its visit at Buffalo.

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DISEASES OF THE CHEST, THROAT AND NASAL CAVITIES. Including Physical Diagnosis and Diseases of the Lungs, Heart and Aorta, Laryngology and Diseases of the Pharynx, Larynx, Nose, Thyroid Gland and Esophagus. Third edition, revised. With 240 illustrations, 8vo, 718 pages. By E. FLETCHER INGALS, A. M., M. D., Professor of Laryngology and Practice of Medicine, Rush Medical College; Professor of Diseases of the Throat and Chest, Northwestern University Woman's Medical School, etc., etc. Price, muslin, $5.00. New York: William Wood & Company. 1894.

The appearance of a third edition of this work so soon after the second edition was issued, strongly accentuates the favor with which the treatise is received by the profession. There is every reason why diseases of the chest, throat and nasal cavities should be considered in one treatise, since very many diseases of the chest take origin in the upper air tract. Again, many supposed diseases of the lungs are really not so, but only simulated, the symptoms being reflexes from affections higher up, in the throat or nose.

Ingals is an experienced teacher, a methodical student and a reliable author. He does not waste time with the discussion of questionable theories or doubtful methods of treatment. His work, therefore, commends itself to the general practitioner of medicine as a safe guide to the understanding of the diseases which it considers, and to the specialist as a practical working exposition. A few pages have been added to this edition, in order to keep it abreast of scientific medical progress, and an appendix contains many valuable formulæ.

A copious index serves to complete one of the best treatises of its kind.

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A Manual of Modern Surgery, General and Operative. By John Chalmers Da Costa, M. D., Demonstrator of Surgery, Jefferson Medical College, Philadelphia; Chief Assistant Surgeon Jefferson Medical College, etc. Saunders's New Aid Series. Small 8vo, pp. 809, with 188 illustrations in the text and thirteen full-page plates in colors and tints. Price, $2.50 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The author of this work announces that it seeks to stand between the text-book and compend, and we are of the opinion that this is a proper estimate of its true place in surgical literature. The text-books must needs be studied and consulted by every surgeon worthy of the name, no matter how cumberous it may seem; while the student who only aims at superficiality will be contented with a compend, no matter how incomplete it may be. Both these opposite and divergent classes may meet on common ground in the study of Da Costa's excellent manual.

Here the student will find that obsolete and unessential methods have been excluded, to the better understanding of those that are in vogue in the present day. Bacteriology is considered in the opening chapter, and then inflammation, that subject which is so little understood and so greatly misunderstood, is intelligently discoursed upon in the next forty pages. These two subjects, together with tubercular diseases of bone, deserve profound study by every person who makes any attempt to practise surgery.

Very wisely, we think, surgical questions relating to ophthalmology, gynecology, rhinology, otology and laryngology have been eliminated from this work, the author very modestly and properly conceding that only the specialist is competent to write upon each of these branches. For like reasons, only the practical questions in orthopedic surgery are discussed, such as hip disease, club-foot and Pott's disease of the spine. On the other hand, very considerable space is allotted to consideration of fractures and dislocations, these subjects being of paramount practical importance.

How deficient in knowledge, with reference to the diagnosis and treatment of fractures and dislocations, the average practitioner of medicine is, can be verified by an examination of his results. The fact is, only a small proportion of physicians, who

are regular graduates in medicine, ever become thoroughly competent to treat these injuries.

Operative surgery receives important and elaborate consideration, and a few brief pages on asepsis and antisepsis close the volume. The index is voluminous, the illustrations are generally good and the mechanical execution of the volume is excellent.

In this brief notice we have only pointed out a few special points that this work possesses. It is an excellent manual, carefully written by a talented teacher and skilful surgeon, who in it has most satisfactorily made his début as an author.

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TRAVAUX D'ELECTROTHERAPIE GYNECOLOGIQUE. Archives Lemestrielles D'Electrothérapie Gynécologique Fondées et Publiés. Par le Dr. G. APOSTOLI, Vice-Président de la Société Francaise D'Electrothérapie, etc. Volume Fascicules I. et II. Paris. 1894.

This work was founded and published by Apostoli for the purpose of grouping all papers and clinical reports appearing in the several countries, to provide gynecologists with a book of reference concerning the employment of electricity in this branch of medicine.

This first volume contains papers taken from English, Belgic, American, Russian, Austrian, German, Polish, Danish, Hungarian and Italian literature.

Apostoli pays tribute to Dr. A. Tripier, whom he credits with being the father of the essentially French science of gynecological electro-therapeutics. This first volume, containing 711 pages, is minute in detail and will be useful as a book of reference. At the end is a bibliography of the subject.

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A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, with Especial Reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Second edition, revised. Volume II., 680 pages. An independent volume upon Drugs. Price, in cloth, $3.50 net; sheep, $4.50 net. Philadelphia: The F. A. Davis Company, publishers, 1914 and 1916 Cherry street. 1893.

This volume was received some time ago, and its notice delayed through inadvertence. It is entirely devoted to the consideration of drugs, as its title indicates. Brief accounts are given of some of the recent additions to materia medica, some of which consist of the newer drugs, and others are animal extracts and juices, as well as the inoculation protectives, tuberculin and tuberculocidin.

The recent progress making in the use of these latter agents indicates that infection, in many virulent and fatal diseases, must be neutralized by bacterial products. This conviction is increasing more and more constantly as time advances, and seems to be sustained by experiences now making with the diphtheria antitoxin. It is probable, therefore, that whether this latter agent should prove successful or not in controlling diphtheria, some other like bacterial product will be discovered of potent agency in neutralizing toxemia resulting from the infection.

The description of drugs in this book is concise and their pharmacology and therapy satisfactorily condensed without curtailing their comprehensiveness. It is a work in which the practitioner of medicine will find much satisfaction, because in it the application of drugs to the treatment of disease is kept constantly uppermost. Students, too, will find it a most excellent working treatise.

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A Manual of the Practice of Medicine, prepared especially for Students. By A. A. Stevens, A. M., M. D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Demonstrator of Pathology in the Woman's College, Philadelphia; Physician to St. Mary's Hospital, etc., etc. Third edition, revised. Illustrated. Small 8vo, pp. xviii.—501. Price, $2.50. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

The third edition of this work appears within two years after its first publication. This would seem to indicate its popularity. There is no doubt that in the present day a tendency to superficial knowledge is one of the evils that we constantly meet, and it would appear that such a book as this tends to foster superficiality in teaching or in the study of medicine. Stevens, however, has prepared one of the best manuals of its kind, and it could be advantageously employed as an index to the general subject of internal medicine. It serves to refresh the well-trained and fully-equipped mind, but does not take the place of the complete treatise.

We congratulate the author on the success he has attained.

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Landmarks in Gynecology. By Byron Robinson, B. S., M. D., Chicago, Ill.; Professor of Gynecology in the Chicago Post-Graduate School; Gynecologist to the Woman's Hospital, the Charity Hospital and the Post-Graduate Hospital. The Physicians' Leisure Library Series. In two volumes. Price, cloth, 50 cents; paper, 25 cents. Detroit, Mich.: George S. Davis. 1894.

These readable little books contain an abstract of some of the author's lectures delivered at the Chicago Post-Graduate Medical School in recent years. The landmarks in gynecology which he considers of chief importance are anatomy, menstruation, labor, abortion, gonorrhea and tumors.

Robinson, who is an easy writer, is especially strong in his consideration of gonorrhea. The dangers, he says, from gonorrhea in women arise from the spread of the infection to the peritoneum and kidney. He describes it as an infectious disease produced by the gonococcus. This germ may pass, he continues, from the vulva through the vagina to the cervix, from whence it may extend over the endometrium and through the Fallopian tube to the peritoneum, where it gives rise to plastic peritonitis, suppurative peritonitis and ovaritis, which may end in recovery, but often in invalidism or death.

Robinson uses the diphthong in certain words, like gynecology and gonorrhea, while he omits it in spelling certain other words. We always omit them wherever practicable. We see no reason why they should be used in gynecology and gonorrhea and omitted from peritoneum and hemorrhage.

These little books deserve to be carefully read by general practitioners of medicine.

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BOOK OF THE NEW YORK STATE REFORMATORY, Elmira, N. Y. Eighteenth year. Containing the Annual Report of the Board of Managers for the year ending September 30, 1893. Transmitted to the State Legislature, January, 1894.

This report is handsomely printed on highly-finished heavy book-paper, and is illustrated by a number of well-executed photogravures and half-tones. It is a history of the scholastic, military and financial status of the Reformatory for a year, and in its reading is found one of the best of arguments for a continuation of confidence in the management.

The recent ordeal through which it has passed accentuates the opinion which we here express,—namely, that there are no persons as fit to judge of the needs of the institution, and of the proper conduct of its superintendent, as the managers themselves.

This handsome book is printed at the Reformatory.

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ESSENTIALS OF DISEASES OF THE SKIN, including the Syphilodermata, Arranged in the form of Questions and Answers prepared especially for Students of Medicine. By HENRY W. STELWAGON, M. D., Ph. D., Clinical Professor of Dermatology in the Jefferson Medical College; Physician to the Department of Skin Diseases, Howard Hospital, etc., etc. Saunders's Question Compends No. 11. Third edition, revised and enlarged, with seventy-one letter-press cuts and fifteen half-tone illustrations. Philadelphia: W. B. Saunders, 925 Walnut street. 1894.

This is a most excellent condensation of the essentials of diseases of the skin, and will serve to remind the student of the leading characteristics of the most common maladies in dermatology. The illustrations have been improved over the former edition, and other additions made keep it abreast of the science.

THE JOHNS HOPKINS HOSPITAL REPORTS. Report in Surgery II., Volume IV. No. 6. The results of operations for the cure of cancer of the breast performed at the Johns Hopkins Hospital from June, 1889, to January, 1894. By WILLIAM S. HALSTED, M. D., Professor of Surgery Johns Hopkins University ; Surgeon-in-chief to the Johns Hopkins Hospital. Baltimore: The Johns Hopkins Press. 1894.

In this brochure the author records fifty cases operated on for the cure of cancer of the breast, by what is called the complete method, in which he has been able to trace only three local recurrences. Great interest, of late, attaches to this operation, in which surgeons all over the world are endeavoring to discover some method of preventing a return of the disease. Halsted describes his cases with much detail, and surgeons will examine the work with considerable interest.

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INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by JUDSON DALAND, M. D., (Univ. of Penna.,) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania ; Assistant Physician to the University Hospital ; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumptives. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen ; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary ; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume III Fourth series. 1894. Royal 8vo, pp. xii.—363. Philadelphia : J. B. Lippincott Co. 1894.

This book is one of the best of the series. It is marked by an increase in illustrations, containing more plates and figures than any of its predecessors, showing a disposition on the part of the publishers and contributors to take heed of the criticisms heretofore expressed in this regard.

The Buffalo contributors to this volume are Dr. Charles G. Stockton, on Chorea ; Dr. Roswell Park, on Perineal Section following Suprapubic Cystotomy, and Hernia ; and Dr. M. D. Mann, on An Intraligamentary Cyst.

Dr. Thomas Hunt Stucky, of Louisville, contributes an interesting lecture on Disorders of Digestion ; Dr. C. B. Burr, of Flint, Mich., speaks instructively on Forms of Insanity ; Dr. V. P. Gibney, of New York, discourses on Congenital Dislocation of the Hip ; Dr. John B. Hamilton, of Chicago, delivers a multiple lecture entitled Traumatic Necrosis,—Various forms of Tuberculosis —Epithelioma of the Lip,—Multilocular Hydrocele ; and Dr. L

H. Dunning, of Indianapolis, adds to the interest of the volume in a fine lecture on Fibroma of the Fallopian Tubes,—Pyosalpinx,—Laparatomy,—Acquired Atresia of the Vagina.

There are other subjects of professional interest dealt with intelligently in this book, but the specimens we give convey an idea of the versatility of the volume.

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TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY for the year 1894. Volume XVIII. Detroit: Published by the Society. 1894.

Among the many volumes of state medical society transactions issued during the year 1894, that of Michigan must necessarily take a foremost place. This judgment must stand whether grounded upon the excellence of the papers read, the quality of the discussions, or the way and manner in which the volume is edited and printed.

The accomplished president, Dr. Eugene, Boise of Grand Rapids, took for the subject of his annual address, Organization, a Necessity for Professional Progress, in which he advocates the uniting the state societies with the national association in such a way as to make the presidents of each state society executive lieutenants in the national body. So, too, would the officers of each county society become subordinates of the state societies. This plan already exists in the state of New York, where the county societies hold allegiance to the State society, in which they are annually represented by delegates.

We notice many familiar names among the officers, members of committees, and Fellows of this society. Dr. Henry O. Waker, of Detroit, is the president for 1895, and the next annual meeting will be held at Bay City during the first week in June.

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TEXT-BOOK OF HYGIENE: A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By GEORGE H. ROHE, M. D., Professor of Therapeutics, Hygiene and Mental Diseases, in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiéne, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Royal 8vo, 553 pages. Cloth, $3.00 net. Philadelphia: The F. A. Davis Co., 1914 and 1916 Cherry street. 1894.

The increasing interest in preventive medicine is testified to by the additions to the text-book literature that are constantly being made in all countries. Nowhere is this more evident than in the United States, where, of late, these books have not only been increased in quantity but decidedly in quality.

The author of this treatise is well known to the professional world as a teacher of distinction and a scientist of learning. Since the first edition of his book appeared, sanitary science has increased in a remarkable degree, hence Professor Rohé, not to be outstripped in the race, has revised his text-book in every chapter. That he has succeeded in bringing it well abreast of the advanced condition of sanitary science is apparent upon even a casual examination, while a more minute scrutiny develops the fact that it has become one of the best text-books that has been published in this country.

Attention, of late, has been called to the subject of quarantine, and recent legislation has very much changed the practice on this side of the Atlantic. In this work, special attention is given to this subject as well as to its kinsman, marine hygiene.

In order to make the book of still greater value to teachers, students and sanitary officers, the author has appended to each chapter an analytical set of questions, while a separate section has been added on the examination of air, food and water.

Taken altogether, it is one of the most satisfactory text-books yet offered to the medical colleges, and we hope to see it universally accepted as a teaching basis for the science of which it treats.

General practitioners, too, can study this book with great interest and profit.

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A Manual of Hygiene. By Mary Taylor Bissell, Professor of Hygiene in the Woman's Medical College of the New York Infirmary for Women and Children. Octavo, cloth, $2.00. New York: The Baker & Taylor Co., 5 and 7 East Sixteenth street. 1894.

This excellent book should be in the hands of every householder. It contains just the sort of information that every intelligent person should possess. It is written by an experienced teacher, who is not pedantic, and, though prepared more particularly for medical students, it is, fortunately, adapted to a wider range of distribution and reading. The chapter on school hygiene deserves special mention, and merits the reading of every father and mother who have children of the school age.

We think this work merits an extensive sale, for the general public cannot have too much information on the subject of which it treats.

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The Pocket Anatomist. By C. Henri Leonard, A. M., M. D., Professor of Gynecology, Detroit College of Medicine. Leather, 300 pages, 193 illustrations, post-paid, $1.00. Detroit, Mich.: The Illustrated Medical Journal Co., Publishers. 1894.

This little book has put in its annual appearance, this time, printed upon thin paper and bound in flexible red leather. This purports to be its eighteenth edition, and its make-up is such as to be particularly convenient for the pocket. It is founded upon

Gray's Anatomy, from which the engravings are copied. It is specially adapted to the use of students as a reminder, but in no way should supplant the use of complete anatomical works.

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A Synopsis of the Practice of Medicine. For Practitioners and Students. By William Blair Stewart, A. M., M. D., Lecturer on Therapeutics; late Instructor on Practice of Medicine in the Medico-Chirurgical College of Philadelphia; Demonstrator in the Philadelphia School of Anatomy, etc. One large 8vo volume, about 434 pages; cloth, $2.75. New York: E. B. Treat, 5 Cooper Union. 1894.

This book has been given its appropriate title, for it is a *synopsis* of the practice of medicine; limited, however, to those diseases and conditions that do not come properly under the field of surgery, obstetrics or one of the specialties. The author announces his purpose as being to present to the profession a brief synopsis of the practice of medicine, but not to replace, by his work, those more extensive and elaborate publications which we term text-books. He has scanned all these, as well as current medical literature, with a view to obtain the best material from the most reliable sources. We are in sympathy with him when he asserts that the practice of medicine does not consist alone in the administration of drugs, but that it is a physician's duty to supervise the methods and habits of life of his patients in a physiological, hygienic and dietetic sense, as well as to control them by the influence of a firm mentality.

The publisher has made the book attractive and the author has made it useful within the limits of its sphere.

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Essentials of Chemistry and Toxicology. For the use of Students in Medicine. Twelfth edition. (Wood's Pocket Manuals.) By R. A. Witthaus, A. M., M. D., Professor of Medical Chemistry and Toxicology in the University of Vermont; Member of the Chemical Societies of Paris and Berlin, etc. 32mo, 314 pages, muslin, red edge; price, $1.00. New York: William Wood & Co. 1894.

The fact that eleven editions of this book have been exhausted testifies to its worth. In this edition, the part relating to the compounds of carbon has been, in great part, rewritten and rearranged to keep pace, as far as possible in a work of this character, with the advances in organic chemistry. The new chemical orthography adopted by the American Association for the Advancement of Science has been followed in this edition. To one unfamiliar with Prof. Witthaus's methods of teaching, it would be a surprise to witness the vast amount of valuable information upon the subject of medical chemistry that has been condensed into this small compass.

## BOOKS RECEIVED.

Diseases of the Ear. A Text-Book for Practitioners and Students of Medicine. By Edward Bradford Dench, Ph. B., M. D., Professor of Diseases of the Ear in the Bellevue Hospital Medical College; Aural Surgeon, New York Eye and Ear Infirmary, etc., etc. Octavo, pp. xxii.—645. With eight colored plates and 152 illustrations in the text. New York: D. Appleton & Co. 1894.

Catalogue of Stoddart Bros., 84 Seneca street, Buffalo, N. Y., importers, manufacturers, wholesale and retail dealers in surgical instruments, trusses, braces, supporters, elastic stockings, batteries, crutches, operating tables, surgical chairs, orthopedic appliances, pharmaceutical preparations, strictly pure drugs and fine chemicals. Buffalo: Baker, Jones & Co. 1895.

Laboratory Guide for the Bacteriologist. By Langdon Frothingham, M. D. V., Assistant in Bacteriology and Veterinary Science, Sheffield Scientific School, Yale University. Illustrated. Price, 75c. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

Sexual Neurasthenia: Its Hygeine, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous. By George M. Beard, A. M., M. D., formerly Lecturer on Nervous Diseases in the University of the City of New York; Fellow of the New York Academy of Medicine, etc., etc. Edited, with notes and additions, by A. D. Rockwell, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc., etc. With formulas. Fourth edition. Octavo, pp. xii.—294. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. 1895.

Blood Serum Therapy and Antitoxins. By George E. Krieger, M. D., Surgeon to the Chicago Hospital, etc. Chicago: E. H. Colegrove & Co. 1895.

Syllabus of Gynecology, based on the American Text-Book of Gynecology. By J. W. Long, M. D., Richmond, Professor of Gynecology and Pediatrics in the Medical College of Virginia; Gynecologist to the Hospital of the Medical College of Virginia; Consulting Gynecologist to the Richmond City Dispensary, etc., etc. Price, $1.00 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

Notes on the Newer Remedies, their Therapeutic Applications and Modes of Administration. By David Cerna, M. D., Ph. D., Demonstrator of Physiology and Lecturer on the History of Medicine in the Medical Department of the University of Texas, formerly Assistant in Physiology, Demonstrator of, and Lecturer on, Experimental Therapeutics in the University of Pennsylvania, etc., etc. Small 8vo, pp. 253. Second edition, enlarged and revised. Price, $1.25. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

Surgical Pathology and Therapeutics. By John Collins Warren, M. D., Professor of Surgery, Medical Department Harvard University; Surgeon to the Massachusetts General Hospital, etc. Octavo volume, pp. 832, with 135 illustrations. Price, cloth, $6.00; half-morocco, $7.00 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

# Literary Notes.

MESSRS. SCHULZE-BERGE & KOECHL, 79 Murray street, New York, announce that they are sole agents for the United States for the diphtheria antitoxin-Behring. In order to protect physician and patient they are willing, although contrary to their custom, to sell direct to physicians and retail pharmacists, who are unable to obtain promptly the remedy from their dealers, at the following prices accompanied with cash :

No. 1, green label, 600 antitoxin units, $1.90 ; No. 2, white label, 1,000 antitoxin units, $3.50, and No. 3 red label, 1,500 antitoxin units, $5.25.

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THE *Atlantic Medical Weekly* is the name of a journal that made its appearance Saturday, January 5, 1895. It is published in Providence, R. I., and is the successor of the *R. I. Medical Science Monthly*. It is edited by Dr. J. Frederick Haller, editor-in-chief ; Dr. Alexander B. Briggs, associate editor, and Edward F. Gamwell, managing editor. Its first numbers present an excellent appearance.

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MESSRS. JOHNSON & JOHNSON, of New York, have published a very interesting brochure entitled Kola, which gives a history of the plant and its fruit, including its bibliography, which latter occupies seven pages of the pamphlet. A review of this literature is then presented, accompanied by illustrations.

This monograph will be furnished on application to the publishers, Messrs. Johnson & Johnson, 92 William street.

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THE American Public Health Association, at its last meeting, decided to issue a quarterly journal in place of an annual volume of transactions. The first number appeared in January, 1895, and is well edited and handsomely printed.

Dr. Irving A. Watson, secretary of the association, is the editor, and it is published by the association at Concord, N. H.

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DR. GEORGE M. GOULD, of 119 South Seventeenth street, Philadelphia, is making a collective investigation as to the influence of albinism upon the eye. He requests all physicians who have had albino patients to address him for a printed sheet of questions.

As it is purely in the interests of science that such work is being done, we hope that all who can will aid the doctor. Any person who can send him the name and address of an Albino will materially help in this good work.

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The F. A. Davis's Company, medical publishers, Philadelphia, announces that it will start the new year by issuing, early in February, a companion book to Dr. R. von Krafft-Ebing's famous treatise, Psychopathia Sexualis, entitled Suggestive Therapeutics in Psychopathia Sexualis, it being a translation of the original by Dr. A. Schrenck-Notzing, of Munich, collaborator with Krafft-Ebing. This book will contain about 325 pages and be sold by subscription only, at $2.50 per volume, in cloth. It will be of the greatest importance as an authoritative work on suggestion as a therapeutic agent in the hands of the intelligent practitioner.

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Albert Lynch, the famous French artist, who received the highest Salon prize for his panel of Spring, has been engaged by *The Ladies' Home Journal* to draw a series of designs for the cover of that magazine, which, as the reading public knows, changes its cover design each month. Lynch is, perhaps, one of the best-paid artists in France, and these covers will cost *The Ladies' Home Journal* nearly $1,000 apiece. But this only demonstrates the enormous expense to which magazines are put in the production of their numbers.—*R. H. Stoddard, in New York Mail and Express.*

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E. B. Treat, publisher, New York, has in press for early publication the 1895 International Medical Annual, being the thirteenth yearly issue of this eminently useful work. Since the first issue of this one volume reference work, each year has witnessed marked improvements; and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. It will be the conjoint authorship of thirty-eight distinguished contributors and specialists from America, England and the Continent. It will contain the progress of medical science in all parts of the world, together with a large number of original articles and reviews by authors on subjects with which their scientific reputation is identified. In short, the design of the book is to bring the practitioner into direct communication with those who are advancing the science of medicine, so he may be furnished with all that is

worthy of preservation, as reliable aids in his daily work. Illustrations in black and colors will be freely used in elucidating the text. A most useful investment for the medical practitioner. The price remains the same as heretofore, $2.75.

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Messrs. William Wood & Co., medical publishers, New York, announce in preparation for immediate publication a work entitled Twentieth Century Practice, which will be an international encyclopedia of modern medical science written by leading authorities in America and Europe. The editor, Dr. Thomas L. Stedman, spent the greater part of 1893 in visiting personally the European contributors to this work. It will be sold by subscription only, for the entire series of twenty volumes.

Prices at which the Twentieth Century Practice will be sold: In extra muslin binding, $5.00; in leather, $6.00; in half-morocco, $7.50; payable invariably on the delivery of the volumes, at, as nearly as possible, regular intervals of three months.

By the plan of publication proposed, this great undertaking is to be completed by the close of the year 1899. So that those who have been so fortunate as to begin their subscription at once, will, upon the most easy terms, find themselves the owners of what it is expected will be the most modern, most practical, most useful and most authoritative work on the practice of medicine at the beginning of the twentieth century.

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The *Medical and Surgical Reporter*, of Philadelphia, ends the forty-second year of its consecutive publication with its issue of December 29, 1894. The chief editorial in this number is devoted to a review of the advances made in medicine and surgery during 1894. In speaking of Medical Literature, the editors say:

"Of the making of books there is no end," thanks to the prevision of generous publishers, and the literary crop of the year contains some wheat among the tares. A few works have been issued in special lines whose value justifies their existence. For pronounced excellence, general utility and widest application, Dr. Gould's new medical dictionary deserves specific mention among the publications of 1894.

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The *Woman's Medical Journal*, of Toledo, O., has presented us with a handsomely illuminated calendar for the year 1895, for which we beg the editors to accept our best thanks.

## Miscellany.

THE United States Department of Agriculture, through its Weather Bureau, is seeking to extend the scope of its work, as set forth in a circular recently issued. It has asked us to publish the text of the circular, which is as follows :

The interest manifested by every class of people in the subject of climate and its influence on health and disease has determined the Honorable the Secretary of Agriculture, through the medium of the Weather Bureau, to undertake the systematic investigation of the subject.

It is hoped to make the proposed investigation of interest and value to all, but especially to the medical and sanitary professions, and to the large number of persons who seek, by visitation of health resorts and change of climate, either to restore health or prolong lives incurably affected or to ward off threatened disease.

The study of the climates of the country in connection with the indigenous diseases should be of material service to every community, in showing to what degree local climatic peculiarities may favor or combat the development of the different diseases, and by suggesting, in many instances, supplementary sanitary precautions ; also by indicating to what parts of the country invalids and health seekers may be sent to find climatic surroundings best adapted to the alleviation or cure of their particular cases.

The hearty coöperation of the various boards of health, public sanitary authorities, sanitary associations and societies, and of physicians who may feel an interest in the work, is asked to achieve and perfect the aims of this investigation.

No compensation can be offered for this coöperation other than to send, free of cost, the publications of the Bureau bearing upon climatology and its relation to health and disease to all those who assist in the work.

Coöperation will consist in sending to this office reports of vital statistics from the various localities. That these reports may be of value, it is evident to all that they should be accurate and complete and be rendered promptly and regularly. Blank forms of reports have been prepared so as to occasion as little trouble and labor as possible on the part of the reporter, and will be furnished by the Bureau on application.

At the very beginning of the investigation it is not possible to outline precisely the channels through which the results obtained will be made public, but it is hoped to publish soon a periodical devoted to climatology and its relations to health and disease. The publication will probably resemble in size and general appearance the present *Monthly Weather Review*, the subject matter being, of course, different.

More detailed information will be furnished on application.

# Buffalo Medical and Surgical Journal

Vol. XXXIV. MARCH, 1895. No. 8.

## Original Communications.

### THE APPLICATION OF INTERMITTENT FILTRATION TO DOMESTIC FILTERS.[1]

By GEORGE W. RAFTER, Rochester, N. Y.

If one were to propose to an association of practical water works managers as a question for discussion, which is more important—whether to secure for large cities an abundant supply of water of medium quality, that is, a supply which may at times be bad, or a restricted supply of absolutely unexceptionable quality, that is, a supply which will always be good—we would find, I think, the consensus of opinion decidedly in favor of the abundant supply of medium quality.

If, however, we propose the same question to an association of hygienists, we will probably be told that as regards standards of purity of public water supplies nothing is admissible which can by any possibility contain the germs of infectious disease; and while we may tacitly accept this latter as the final conclusion of recent scientific endeavor, we, nevertheless, find ourselves, when we attempt to obtain a public supply for a large city which answers to this requirement, confronted with the stern fact that, aside from small quantities of sparingly distributed spring water, practically no such supplies exist.

We learn, then, at the very outset, that in the selection of the great majority of public water supplies there must be a compromise as regards quality, and it is largely due, without doubt, to this nearly universal rule the idea has become so generally prevalent that the first consideration should be abundance, quality only entering into the account when the equation of quantity is fully satisfied. Further, if we examine the matter in detail we shall

1. Read at the annual meeting of the Buffalo Academy of Medicine, June 26, 1894.

find that in selecting the water supplies of most of our American cities and towns, quantity has thus far been the sole consideration governing; and that, other than remotely, quality has not been considered at all.

Moreover, even when we threw quality largely out of the account, the choice is not always easy because of great expense, and when we assume, as the teachings of hygiene show that we should, certainly medium quality, the choice even then frequently becomes a matter of extreme difficulty.

A number of years ago the present speaker had occasion as a part of his ordinary duties to examine somewhat in detail every possible source from which either a temporary or permanent supply of potable water could be drawn for the city of Rochester. In the course of the study something like eighteen distinct sources were examined, with the result of showing that taking into account everything, the choice was really narrowed to Hemlock lake, the source formerly selected, which, while admittedly a source of inexceptionable quality, was still, in the opinion of many citizens of Rochester, hardly available as an additional supply by reason of the great distance (thirty miles) which the water must be transported.

The result of a fairly exhaustive examination was to show, however, that taking into account quality as well as cost of obtaining a given quantity, it followed that Hemlock lake, even though thirty miles distant, was by far the preferable source of supply for the city of Rochester.

Western New York, looked at casually, would be considered a well-watered region, and since making the examination in question it has always seemed to me an exceedingly interesting fact that the repeated selection of Hemlock lake as the natural source of the potable water supply of the city of Rochester, by all the engineers who have examined the matter in detail since about 1860, when it was first proposed, down to the present, should show clearly that potable water of high quality and in large quantity is in reality rather a scarce commodity in Western New York. At any rate, we may draw the conclusion that the theoretical hygienic standard is in many localities practically impossible of attainment.

The foregoing may be taken, then, as indicating—albeit rather rapidly—that there are as yet but few public supplies, the water of which can be safely used for drinking without preliminary purification of some sort.

The art of filtration has now so far developed that the indispensable preliminary purification can be certainly obtained in every case where municipalities are willing to meet the additional expense, but it must be understood that thus far only a few American towns have shown themselves willing to provide this remedy for the entire supply. The reasons for this apathy may be found mostly in (1) a lack of appreciation of the importance of furnishing drinking water of the hygienist's standard; and (2) the considerable expense of filtering the whole supply for the purpose of furnishing drinking water, which naturally is only a very small proportion of the whole. Hence it results that practically the only way safe drinking water can be obtained from the average American public supply is by the use of domestic filters, wherein the drinking water of each family may be purified as used from day to day.

That there is a real demand for an efficient domestic filter, one that can be relied upon to furnish absolutely pure water at all times, to sterilize it in short, may be sufficiently illustrated by considering that since 1880 about 1,000 patents have been issued from the United States Patent Office for domestic filters alone. Nearly all of these are not filters in any proper sense of the word, but are merely strainers, and possess the defect of either clogging or else failing to purify at all.

In view of the demand for a good filter, the fact that only one or two of these have come into even moderate use is very satisfactory proof of lack of the essential qualities of a good filter in nearly the whole series.

Broadly, we may classify filters as either continuous or intermittent.

In continuous filters, water is passed through the filter in a continuous stream, the rate of flow depending, in many cases, upon the personal whim of the designer, and in others upon natural limitations imposed by the filtering material. With sand filters operated continuously, experience has indicated a certain rate beyond which it is impossible to operate and secure any special improvement of the effluent.

In intermittent filters the water is passed through the filtering material intermittently—that is, with intervals between each application of water. In such filters the material is preferably coarse, clean mortar sand, and the intervals of application are made long enough to insure the sinking of each dose of water below the

surface of the sand before another application is made. In continuous filters, on the other hand, nearly every possible variety of material has been used, as, for instance, sand, gravel, charcoal, felt, porous stone, porous porcelain and many others; but at present sand, charcoal, porous porcelain and porous natural stone are the ones in more general use.

In order to understand the conditions essential for a perfect filter we need to consider briefly (1) the nature of the impurities to be got rid of by filtration; and (2) the rationale of the filtering operation itself.

Throwing out of account mineral impurities which are not, so far as effect on health is concerned, generally speaking, serious in any water likely to be selected as the source of a public supply, we may classify the ordinary impurities as: (1) Suspended impurities, which may be taken to include all miscellaneous particles of matter, either vegetable, animal or mineral, which have gained access to the water together with the minute forms of microscopical life, such as the algae, infusoria, rotifera, entomostraca, etc.; and (2) the dissolved impurities, including the nitrogenous products of decomposition; (3) disease germs—as for instance the germs of cholera, typhoid fever, and the like.

In a general way we may say that a water is satisfactory from the points of health, taste and comfort: (1) When it is free from suspended matter, both animal and vegetable; (2) when it is either colorless or nearly colorless; (3) when it contains enough dissolved oxygen to render it bright and refreshing; (4) when it contains not only no disease germs but also nothing which can by any possibility serve as a nourishment for such germs should any by chance gain access.

The perfect filter must be so arranged, then, as:

(1) To remove all suspended matter.

(2) To render a brown-colored water either colorless or nearly colorless.

(3) To furnish an effluent containing, at any rate, nearly the normal amount of dissolved oxygen.

(4) To furnish an effluent containing neither disease germs nor the nutrient food of such germs.

As a final condition of a perfect domestic filter, we may lay down the proposition that it must be so designed as to do its work efficiently for a long time without any attention. In the great majority of private houses there is no one sufficiently skilled in the

theory and practice of filtration to give a filter such daily attention as most of those now in common use demand. The perfect filter must, therefore, be self-cleansing and automatic. Anything short of this is not in line with the best recent thought on domestic filtration.

We may now examine the theory of filtration a little in detail.

In the first place, it has been known for a long time that when impure water is poured upon porous ground at intervals, and in not too great quantities at any one point, it is not only quickly absorbed, but is found when flowing out, as from springs at lower levels, to be more or less completely freed from the organic impurities originally contained. This is Nature's process of purification, and in those localities where the proper materials exist naturally, as for instance in extensive sand areas, the water of the region, howsoever impure it may have been naturally, is rendered absolutely pure after filtering for a short distance through the ground. So marked is this action, that ordinary city sewage, when intermittently applied, may be so far purified by filtration through only five feet of clean sand, as to be indistinguishable by either chemical or bacteriological tests, from what are in most places considered to be unexceptionable sources of water supply. The present speaker has on several occasions drunk of the effluent from such sewage filters, so far as he knows, absolutely without ill effect.

The old idea of a filter was that of a strainer purely, but as the result of recent advances we now know that the purifying action of the soil in the case just considered is due to several distinct processes, as for instance:

(1) Simple filtration (*i. e.*, straining) or the separation and retention of the suspended matter.

(2) The precipitation and retention of the various organic substances in solution.

(3) The oxidation of the organic matter so arrested and retained, by the action of living organisms.

This latter step involves what is known as the process of nitrification, wherein two living organisms, which are specially designated as the nitrous and nitric organisms, absolutely resolve, when the proper conditions obtain, the objectionable organic matter of water into innocuous forms. Moreover, the nitrifying organisms are inimical to disease germs and other forms of bacterial life. It, therefore, follows that any water which has been thoroughly exposed to the nitrifying action is not only freed of bacteria--

sterilized—but has also been freed, by the same operation, of bacterial food. If, then, such water should, after filtering, become accidentally contaminated we may expect—what has indeed been found by experiment to be the case—that the new growth thus introduced will be relatively less luxurious than it would be in the effluent of any mere straining filter where dissolved organic matters are presumably mostly not removed.

As another attribute of the perfect filter we may say, then, that it must be so arranged as to permit the nitrifying organisms to do their work of reducing the organic matter of the treated water. By way of showing how this may be brought about, let us consider the present state of information in regard to nitrification.

As long ago as 1862, Pasteur, having in mind that fermentation was due to the action of living agents, advanced the idea that possibly the production of nitric acid in soils might also be due to a similar agency. Again, in 1873, A. Müller remarked that while the ammonia of sewage often changed rapidly into nitric acid, nevertheless solutions of ammonia and urea prepared in the laboratory remained unaltered. Müller suggested a ferment which was absent from the pure solutions prepared in the laboratory, but made no attempt to verify this by any experimental determination; and it was not until 1877 that Schlössing and Müntz established the true nature of nitrification. In their paper published in that year they demonstrated by a series of brilliant experiments that nitrification must be the work of a living organism.

The next step was to discover and isolate the nitrifying organisms, and although Schlössing and Müntz fully recognized the importance of accomplishing this and materially advanced our knowledge of nitrification, still it is doubtful if they ever worked with really pure cultures. Certain difficulties of technique came in, which it is not necessary to refer to here, but which still delayed the final demonstration until 1890, in which year Dr. P. F. Frankland, in England, and Winnogradsky, in Switzerland, both announced the discovery of and described organisms capable of oxidizing ammonia to nitrates. At about the same time Warington, in England, and the biologists of the Massachusetts State Board of Health at Boston also succeeded in obtaining pure cultures of these organisms.

Without pursuing these interesting experimental researches at greater length, we may now state that the ascertained facts indicate that nitrification takes place in two stages, each characterized by a

distinct organism. The office of one of these is to convert ammonia into nitrite ; while the other converts nitrite into nitrate. Hence we have the nitrous and nitric organisms or ferments. Both are present in ordinary soils in enormous numbers ; they are also present in natural waters and in sewage, where they quickly develop under certain conditions in quantity.

The conditions of success in nitrification, so far as ascertained, are :

(1) The presence of the natural food of the organisms.

(2) The presence of a sufficient supply of oxygen. The vast importance of this condition upon filtration will appear as we proceed.

(3) The presence of a salifiable base with which the nitric acid when formed may combine.

(4) A favorable temperature of the materials to be nitrified. Experiments show that nitrification is most active between the temperatures of 55° F. to 95°. Above 95° it diminishes rapidly until at about 130° F. it ceases entirely. Below 55° it diminishes, but does not entirely cease until about 32° is reached. As regards domestic filtration, the usual temperature of about 70° at which houses are kept may be considered, then, a very favorable one, as insuring the activity of the nitrifying organisms at all seasons of the year.

(5) Nitrification takes place best in the dark.

With the necessary conditions of nitrification before us we see at once why all sand filters worked continuously are of necessity foredoomed to failure. At the best such filters can only act as strainers with the result of either soon clogging up and entirely ceasing to work until cleaned, or else the inter-spaces become so filled with the organic matter strained out as to furnish breeding places for any bacteria present in the water, until, as has actually been found to happen, such filters often send out an effluent containing more bacteria than in the original water. The reason for this is that continuous filtration violates that fundamental principle of nitrification which affirms the presence of a considerable quantity of oxygen as an indispensable condition ; hence, the working of any filter continuously is likely to lead, by an accumulation of organic matter in the interstices of the filter, to an aggravation of the evil which filtration is intended to correct.

It is, of course, true that all natural waters contain a certain quantity of dissolved oxygen, and to the extent of the influence of this

there may be some slight nitrification in continuous filtration. Experience, however, has shown that the dissolved oxygen alone is insufficient to produce anything like an efficient resolution of the contained organic matter. And we may, therefore, take it as settled that intermittency of application is one of the indispensable conditions for complete nitrification.

The theoretically perfect filter will, therefore, be one embodying arrangements for supplying water in the proper quantity intermittently and at the same time insuring a sufficient supply of oxygen. The nitrifying temperature and absence of light are matters of detail easily attained and which need not be specially described here.

The filtering material will be clean, sharp sand resting upon gravel supported at the bottom of a filter barrel. The sand should be arranged in graduated layers progressively finer from above downwards. A layer of loam may be introduced a few inches from the top, although such a layer is not necessary for the success of such a filter. The chief office of the loam would be to introduce the nitrifying organisms, although now that we are able to cultivate them artificially they may be introduced at will to all parts of the filter and consequently the layer of loam becomes less necessary than before the methods of artificial propagation of the nitrifying organism were worked out.

Such a filter operated intermittently will perpetually resolve nitrogenized substances into:

(1) Free nitrogen gas, which passes into the common stock in the atmosphere; and

(2) By combination with oxygen to form nitric acid, which again enters into combination as rapidly as formed with mineral bases, such as lime, etc., which are always present in water, thereby producing harmless, soluble mineral nitrates, which are dissolved as fast as formed and pass off in the effluent.

The mineral nitrates, in any quantity, resulting from the nitrification of the organic impurities of potable waters are not objectionable to human beings, nor are they in any degree nutrient to bacterial life.

A filter of this character will also be fairly self-cleansing—that is, it will tend to keep itself perpetually clear of any accumulation of organic matter in the interstices of the filter; and, inasmuch as the property of self-cleansing is in reality a distinguishing feature of intermittent filters, we may properly, even at the risk of some

little repetition, define at this point the conditions for self-cleansing, namely :

(1) A filter composed in its upper layers of coarse, porous filtering material, as for instance coarse mortar sand, with finer material below.

(2) Intermittency of application of water to such a filter.

(3) The presence in the voids of the filter of the nitrifying organisms in conjunction with a mineral base.

(4) For the most perfect results a temperature of about 70° F.

(5) The application of the water in such limited quantities as to furnish an opportunity for the nitrifying organisms to come in contact with every particle of water passing through the filter.

(6) In the case of water carrying silt in suspension, the provision of a silt-arrestor, through which the water passes before going upon the filter proper.

In regard to condition (3), it may be again stated that nitrifying organisms not only exist naturally in soils, but in the waters of all streams, ponds, lakes, as well. If we make an intermittent filter of clean, coarse sand, etc., as described, and apply any natural water, we find the nitrification nearly nothing in the beginning, but after a time gradually increasing, until finally a maximum rate of nitrification will be attained and, with uniform temperature, maintained indefinitely. The cultivation of the nitrifying organism in pure cultures is now a simple matter and such a filter may, therefore, be brought to a maximum state of efficiency (in less time than by the natural method) by the introduction of artificial cultures of the nitrifying organism, which becoming quickly established upon the surfaces of the sand grains, will produce complete nitrification, the same as ensues as the final result of the slower process of natural inoculation already described.

Such a filter is in the fullest sense of the word self-cleansing. A trial plant which has been used at Lawrence, Mass.,[1] continuously for five years filtering city sewage at the rate of about 2.3 gallons per square foot of area per day, still shows the sand clean below the first six inches ; it is the opinion of those who have watched the process from day to day that the renewal of the upper six inches on the filter in question will again make the filter practically as good as at the beginning. In filtering ordinary waters where the amount of organic matter to be resolved is far less than in city sewage, the daily quantity of water treated may be proportionately

1. At the Experiment Station of the Massachusetts State Board of Health.

greater, or as a general statement, subject to exception in some cases, we may say that ordinary potable waters may be filtered at the rate of about twenty-five gallons per square foot of filter area per day and yield a sterile effluent.

The following are a few results obtained at Lawrence, from tests in which different hardy varieties of bacteria have been added to water before filtering through an intermittent filter of the kind here described :

(1) *Bacillus Prodigious.*—A harmless but exceedingly hardy variety of bacteria was added in large quantity and the water filtered at the rate of forty-five gallons per square foot per day. The effluent came through absolutely sterile.

(2) *Bacillus Coli Communis.*—A common, hardy, intestinal form, universally present in domestic sewage, was applied in large quantities to a filter, filtering at the rate of forty gallons per square foot of area per twenty-four hours. Result: Absolutely sterile effluent.

(3) *Bacillus Typhosus.*—The bacillus of typhoid fever was added in large quantities and the water filtered at about a rate of fifty gallons per square foot per day, with a result, as in the previous case, of absolute removal.

As the result of a large amount of experimentation extending over a period of five years, it has been further fully determined that any given filter has a certain maximum rate of work beyond which it is impossible to force it, with a given water, and at the same time secure a complete removal of bacteria. Again, the slower the rate of filtration, the more certain we are to obtain absolute sterilization. In order, therefore, to keep within such bounds as will certainly insure perfect results always, we lay down the general rule that the rate of filtration should not exceed about twenty-five gallons per square foot of area per day. Very impure waters may be filtered up to or near to this limit and still yield a sterile effluent, while, on the other hand, fairly pure waters may, as indicated, be safely filtered at a considerably higher rate.

In order to illustrate the relation of rate of filtration to degree of purification attained, we will briefly consider another phase of the matter. With a filter five feet in depth and one square foot in area the total cubic contents is five cubic feet, equivalent to 37.5 United States gallons. The voids in the sand will equal about 40 per cent. of the whole volume, or about fifteen gallons. If filtering at the rate of fifteen gallons per day, the amount of water

added in that time would just equal the volume of the voids. If filtering at the rate of forty-five gallons per day, the volume added would be three times that of the voids. The effect of increasing the rate upon the length of time the treated water would remain in contact with the minute nitrifying organisms distributed throughout the voids and clinging to the surfaces of the sand grains, is so obvious, therefore, as to require no further discussion.

We may also consider for a moment the real effect of the intermittency of application. In doing this, let us assume by way of illustration that water is applied to such a filter in half-gallon doses at the rate of one gallon per hour. We have then a depth of 0.8 of an inch of water thrown upon the surface of the filter every half hour. With coarse, upper sand this quantity will ordinarily disappear beneath the surface in a few minutes. As it gradually sinks into the sand it spreads itself in thin laminæ over the sand grains and at the same time the air is drawn into the space above while water is forced from the bottom. The process of gradual sinking into the inter-spaces of the filter and outflow of effluent from the bottom goes on until, at the end of a half hour, another dose of water is suddenly applied to the depth of 0.8 of an inch over the entire area of the filter. The air which has passed into the voids, following the downflow into the sand of the previous dose, is mostly retained therein and forced forward through the filter. We have then alternate layers of air and water passing down through the voids, thereby insuring not only thorough mechanical oxygenation of the water, but absolute contact of every particle with the nitrifying organisms in the voids. The movement of the water through the sand even with comparatively high rates of filtration is seen to be quite slow.

The mechanical arrangements for effecting the various operations here described are so clearly shown in the accompanying sketches as to render extended description unnecessary.

In conclusion it may be stated that there is no reason why, after the intermitting apparatus of one of these filters is properly adjusted, it may not go on furnishing sterile water without any especial attention for several years. Even at the end of that time the only attention required would probably be a mere renewal of the upper layer of sand; at any rate such results may be expected with all waters which are tolerably free of silt. With silt-bearing or muddy waters, the silt catcher would, of course, require occasional attention.

Another point which may be properly noticed is in relation to just the difference between intermittent filtration and continuous filtration through sand, viz.:

In continuous filtration, water is supplied to the upper surface of the filter in large quantities and flows continuously into the voids, completely filling them. Air is, therefore, excluded and the process becomes mostly one of mere straining. The organic matter accumulates in the voids of the filter and in a short time seriously limits its action, precisely as occurs in the Pasteur filter and in all other filters of the straining class. In an intermittent filter, the nitrifying organisms are aërobian forms ; that is, they require the presence of oxygen as a necessary condition for their growth. The exclusion of atmospheric air in the continuous process soon results, then, in cessation of active nitrification, although the process may go on for some time because of the presence of a small amount of dissolved oxygen in all natural waters. The relations of continuous filtration to intermittent and the consequent variations in the degree of nitrification attained in the same filter, have been observed in the series of experiments at Lawrence, already referred to, and the conclusion reached that with sand filters used continuously, the inert organic matter and living organisms both tend to permanently increase, until finally the inter-spaces become entirely filled. If any disease germs are present in the treated water, the filter may become the source of the greatest danger. Indeed, cases have actually occurred in which the bacilli of typhoid fever have so far increased in the inter-spaces of a continuous filter as to furnish many thousands in every glassful. As emphasizing the difference between intermittent and cantinuous sand filters, we may say, in a few words, that intermittent filters destroy disease germs when present in the treated water, while continuous filters, by furnishing a nidus, may lead to their extensive multiplication.

Reference has been made in the foregoing to the effect of filtration on reduction of color in brown-colored waters. On this point it may be said that the Lawrence experiments indicate, with filters five feet in depth, a reduction of color of about 50 per cent. by intermittent filtration. This would so far improve ordinary waters as to render them unobjectionable. The experiments indicate, however, more complete removal of color with deep filters than with shallow, and where very brown-colored, peaty waters are encountered, a greater depth of filter than five feet can possibly be used with good effect.

As to the amount of dissolved oxygen in the effluents from intermittent filters, the experiments show from 90 to 100 per cent. of that necessary for complete saturation at the actual temperature.

Reference may be made to the Pasteur-Chamberland filter, invented by Dr. Chamberland in the laboratory of the great French chemist, Louis Pasteur. This filter is a strainer purely, but when skilfully handled it may be made to yield a sterile effluent. The filtering material is a thin tube of porous porcelain, through which water is forced by pressure. With water containing any amount of impurity the outside of the tube soon becomes covered with a film, composed of the organic or mineral impurities which are naturally present in the water and which, if not frequently removed, soon clog the filter, entirely preventing further action until the tube is cleaned. Again, after the tube has been several times fouled, any bacteria present in the treated water penetrate the pores of the filter tube itself and finally pass through, appearing in the effluent. When this occurs, the tube must be purified by heat before it is again capable of yielding sterile water. In order to understand how bacteria may finally pass through the Pasteur tube we have only to consider that the porosity of the tube is perhaps equivalent to one micron or say the one twenty-five thousandth part of an inch. Many bacteria, as for instance the typhoid bacillus, are not more than one-fifth of a micron or one one-hundred thousandth of an inch in diameter, while typhoid spores (if they exist) are even much less than this. As a mere matter of mechanics, then, it is clear, if the pores of the filter extend straight through from outside to inside they would offer almost no resistance to the passage, at any rate, of the bacilli and germs of typhoid, but fortunately, as can be determined by a microscopical examination of a section of a Pasteur tube, the pores are sinuous and the windings which any organic particles passing through them must undergo seems to delay for a while their appearance on the inside of the tube. The few thus arrested may multiply in the pores of the tube until finally together with those brought by the throughflowing current the pores may become filled. When this happens the effluent will certainly show the presence of the objectionable germs, whatever they may be. The Pasteur filter, then, while probably efficient when used under skilful supervision in laboratories, cannot be relied upon to furnish sterile water in private houses, where in the majority of cases the skilful supervision will be limited to that of the servant girl.

In continuous filtration on a large scale abroad, it has been found by experience that the purification takes place almost entirely at the surface, where, before any special improvement of the effluent can take place, there must gather a felt-like bacteria jelly which is found to be the effective agent of filtration. With waters of ordinary impurity the surface of the sand becomes so far clogged in about a month's work as to require cleaning, and following which operation there succeeds a period, while a new jelly is forming, during which the improvement of the effluent is only slight. Light appears essential for the formation of this jelly in its greatest perfection, and thus far it has not been specially observed in the smaller filters used for house service here. An examination of a number of such has indicated the penetration of the organic impurities some distance into the sand in the manner already described.

The existence of the bacteria jelly on the surfaces of large continuous sand filters abroad has, however, led to a curious fad in filtration which is, so far as the present speaker knows, purely American—namely, the notion that the use of an alumina jelly in mechanical pressure filters furnishes the indispensable condition for perfect filtration. A discussion of this particular view of filtration would lead too far away from the present subject, and it is only referred to at all as an illustration of one of the essentially erroneous views of filtration which obtained considerable currency before the theory of the purification of water by filtration was as well understood as at the present time.

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## OBSERVATIONS UPON AN ANENCEPHALIC MONSTER.[1]

By E. B. ANGELL, M. D., and S. L. ELSNER, M. D., Rochester, N. Y.

Anencephalus is a monstrosity of not great rarity in a large obstetrical practice. It is, however, uncommon for delivery to occur at term and for the infant to live for any definite period. It was my misfortune to deliver such a monster in January last.

The mother, *æt.* 32 years, had given birth to three healthy children, all living. There was nothing noteworthy during the period of pregnancy, which was prolonged rather than shortened. The labor was a tedious one, the presentation difficult of determination and finally the forceps were employed. During the course of

1 Read by Dr. Elsner before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

parturition the fetal movements were unusually violent, a circumstance often noted during the delivery of such monstrosities.

Aside from the head the infant, a male, was well proportioned, as will be seen by the photographs prepared for us by Dr. Weigel. The skull vault was absent, displaying a mass similar in shape and contour to the cerebrum and cerebellum, and occupying the central portion of the cranium. The longitudinal fissure is distinct, and to a fanciful observer even the rolandic fissures, as well as rudimentary convolutions, suggest themselves. At its posterior border were two distinct protuberances, which undoubtedly represented

ANGELL-ELSNER—ANENCEPHALIC MONSTER.

the cerebellum. The upper margin of the occipital bone had become inverted, almost occluding the posterior fossa. The above protrusions rested upon and were outside the bone. The whole mass was soft, semi-fluctuating, cystic, and somewhat nodular in character. It was covered by a vascular membrane, continuous at its base with the scalp, but devoid of hair. There was no pulsation, nor was there any change in tension during sleep or when the infant would cry. The following measurements were recorded:

DIAMETERS.

| | |
|---|---|
| Occipito frontal | 7.5 cm. |
| " mental | 8 2 " |
| Bi-temporal | 7 " |

| | | |
|---|---|---|
| Cervico-bregmatic | 5 cm. | allowing 4 cm. for elevation of tumor. |
| Suboccipito-bregmatic | 7 " | |
| Fronto-mental | 7 | cm. |

CIRCUMFERENCES.

| | | |
|---|---|---|
| Head | 28 | cm. |
| Tumor | 18 | " |
| Bi-auricular arc | 12 | " |
| Transverse diameter (between shoulders) | 22.8 | " |
| Length of child | 54.8 | " |
| Girth " chest | 40.7 | " |
| " " abdomen | 33 | " |
| Weight | 9 | lbs. |

The infant survived eight days and furnished us an opportunity for some interesting observations.

There was double divergent strabismus, and the limbs were in a state of constant spastic contraction. The reflexes, deep and superficial, were found to be exaggerated, the eye, or conjunctival reflex, also being present.

While there was double external strabismus, with partial ptosis and slight protrusion of the eyeball, the infant appeared able to direct its gaze to a limited extent, a lighted candle holding its attention. The pupils were in a mid-state between dilatation and contraction, but responded, though feebly, to stimulation.

Sensation of pain apparently persisted, a pin prick resulting in a wry face with a slight outcry, this undoubtedly being reflex rather than volitional. This sensory reaction was present everywhere, but somewhat limited.

The child nursed perfectly, this function apparently being instinctive or automatic. In fact, simple reflex action plays a more important role in the matter of mere existence than is generally credited.

Pressure upon the nodules of the pseudencephalic mass produced a convulsive spasm of the muscles generally. On the second day stimulation by the faradic current, with slow interruption, was resorted to. At first, its application being restricted to the surface of the tumor, metal electrodes were applied, one centimeter apart, to the supposed motor area, but even with a strong current no reaction was obtained. The electrodes were then gradually separated until the whole tumor was included, without any muscular effect. By increasing the current, strong contraction was finally developed in the neighboring scalp muscles. At no time did elec-

tric stimulation of what appeared to be the motor area of the cortex, develop reaction in the corresponding muscles, although on the sixth day an insulated gold needle was introduced within the structure of the tumor, as a sub-cortical electrode. Puncture by the needle, however, gave escape to a quantity of bloody serum. On the seventh day both sides of the mass were aspirated, about three drachms of fluid being withdrawn. This operation was not attended by any inflammatory action or rise of temperature.

From the second or third day occasional convulsions occurred and after the aspiration they became more frequent and severe, the infant dying in a hard seizure upon the eighth day. Owing to the extreme prejudices of the family, no satisfactory autopsy could be secured and a hurried examination of the head had to suffice. The skull was perfectly flat on a plane through the junction of the nasal and supraorbital arch of the frontal and the superior angle of the occipital bone. There was no frontal bone, beyond a rudimentary orbital plate. The parietal bones were wholly absent, the base of the tumor occupied fully two-thirds of this flat surface, the circumference at the base being 17.8 cm., while the skull at the same level measured only 28 cm. The tumor measured 6.2 cm. longitudinally, 5.1 cm. transversely and had an elevation of 4 cm.

Upon dissecting the tumor from its bed, its under surface was found to rest upon a flat, bony floor, made up of the cribriform plate of the ethmoid, the body and large wings of the sphenoid, the bassilar portion of the occipital bone and inverted edges of the squamous portion of the temporal bones.

The optic and one or two other cranial nerves were found upon the floor of the skull. There was no anterior or middle fossa. The opening into this shallow skull, through which this mass connected with the medulla, was located just posterior to the basilar portion of the occipital bone. This opening was about 1.3 cm. in diameter and led posteriorly into a small fossa and thence downward directly to the foramen magnum.

The occipital bone was complete, but its development so greatly retarded that it afforded no room for the cerebellar nodules which rested upon its inverted margin. This cavity was only partially occupied by the shrunken pons. The occipital bone being united and the spinal column preserved, the monster was an anencephalus or pseudencephalus of the nosencephalic type according to the classification of Geoffrey St. Hilaire.

Dissection of the mass was impossible, but macroscopically in place of the normal structure it seemed largely composed of bands or strands of connective tissue, surrounding cystic prolongations of the cerebral cavities.

Upon tearing out the few shreds of cortical tissue we smuggled away, a microscopical examination disclosed a few scattered ganglion cells with a marked predominance of connective tissue.

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## OCCIPITO-POSTERIOR POSITIONS.[1]

By P. W. VAN PEYMA, M. D., Buffalo, N Y.,
Obstetrician to the Buffalo General and Erie County Hospitals.

My own experience and that of several of my colleagues, as well as the varying and often contradictory views expressed by writers on obstetrics, lead me to the conviction that the treatment of occipito-posterior positions is a subject which merits further attention.

The comparative frequency of the occurrence of this variety of vertex presentations adds to the importance of this subject. While different statistics naturally vary somewhat, it is generally admitted that fully one-fourth originally present with the occiput posteriorly to a greater or less degree.

Unscientific obstetrics, as practised in these cases, leads to many deplorable results. Penrose says : "If I were to be asked what one obstetric difficulty, in my experience, had caused most maternal and fetal deaths, what one had caused most maternal and fetal accidents, not necessarily fatal,—accidents, however, often making the rest of life worthless, or still worse than worthless, a tragedy,—I think I would say occipito-posterior positions, where the occiput had rotated into the hollow of the sacrum, and which had been *improperly treated.*" My own observation warrants similar conclusions.

Proper treatment presupposes and demands correct diagnosis. The early diagnosis of the condition is not only of vital importance, but is also often difficult. The determination of the various positions of the vertex, by a recognition of the fontanelles and sutures, implies a practical knowledge not easily acquired. As a consequence the average physician continues to apply the forceps

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

in protracted cases of this kind, regardless of the position, and as though the head were a perfect sphere and the pelvis a perfect circle. Naturally we find that, in numerous instances, the head is drawn through with the occiput posteriorly, where, if the case had received intelligent treatment, or even had been left to nature, anterior rotation would have been obtained, with a more favorable result for both mother and child.

I desire here to call attention to the triangular depression presented by the occipital bone, when, as a result of intrapelvic pressure, it is overlapped by the edges of the parietal bones, as being, perhaps, the most characteristic landmark presented by the vertex. In consequence of the varying relation of the body to the head, as well as on account of the inherent difficulties of the method, external abdominal examination is often unsatisfactory. In rare cases it may be necessary to reach an ear, or even the face, in order to arrive at a positive diagnosis.

Regarding the nature of these cases, there can scarcely be any doubt that the large majority should be considered as normal presentations, in which nature is entirely adequate to effect a normal delivery. A very great proportion of these eventually result in forward rotation of the occiput. According to Kehrer, quoted by Schröder, only one vertex in seventy-five is delivered with the occiput posteriorly. Considering this fact, in connection with the fact already referred to, that at least one in four vertex presentations originally presents with the occiput posteriorly, we see that only about one in twenty fails to rotate normally. American statistics give rather less favorable results. This I am inclined to attribute to the greater tendency in this country to interfere—to the earlier and more frequent employment of the forceps.

Forward rotation, or its failure, depends upon many circumstances. With pronounced flexion, strong pains, a normal perineum and the head and pelvis of normal size and shape, we can confidently look forward to natural rotation. In proportion as these conditions are lacking, will the frequency of failure increase. Many cases occurring in my own practice might be cited to illustrate these statements, which are also in accordance with the views expressed by many writers. And yet, while it is maintained that the majority of these cases run a normal course, it cannot be denied that, as a rule, they are unusually protracted and also not rarely call for intelligent intervention. The less easy adaptation of the larger occipital end to the comparatively smaller posterior

lateral portion of the inlet, the greater rotation required and the reversed leverage through which the *vis a tergo* is applied, are the more important factors which account for the frequent delay, trying to both patient and accoucheur.

The treatment which may be required varies, naturally, with the stage of labor. The general rule, to maintain the membranes intact during the first stage, applies here with unusual force. Postural treatment, recommended by Reynolds and others, in the expectation of effecting rotation by the force of gravity, has not, in my experience, been very successful. Objections to it are that, if long continued, it causes exhaustion of the patient, and that by calling her attention to the irregular condition it also affects unfavorably her morale. The mental state of the patient is a factor of great importance and one quite frequently underrated or entirely ignored. In arriving at a conclusion as to the necessity for active interference, many circumstances require consideration. Assuming that the circumstances are otherwise normal, we shall do well to leave the case to nature, so long as fetal heart-sounds are strong and regular and we have the confidence and coöperation of the mother, the latter based on a good physical and mental state. If, however, the case becomes unduly prolonged and the condition of fetus, or mother, or both, demand interference, it will often be found that the indication is fulfilled by effecting and maintaining more pronounced flexion. The importance of complete flexion depends upon the well-known fact that the lowest point, in this case the occiput, is naturally deflected forward. Flexion may sometimes be brought about by upward pressure, especially during a pain, with the tips of one or more fingers upon the forehead. This procedure may sometimes be advantageously supplemented by external pressure upon the body of the fetus with the other hand. According to my experience this method is less positive in its results, especially when the head is still but little engaged, than it has been made to appear by many writers on obstetrics. On the other hand I have been much impressed with the mobility of the head, even when well advanced into the excavation, if the patient be thoroughly anesthetized. If the former procedure fails to accomplish its object, the patient may be anesthetized and the rectification affected by means of the whole hand. The use of the vectis, or of one blade of the forceps, I have found useful in certain cases. If, by means of the finger tips, flexion is not accomplished ; or, if having been obtained, partial extension reoccurs ; or, if with

complete flexion there is no advance, then more active interference is proper—is, in fact, demanded.

Under these circumstances the patient should be completely anesthetized, the whole hand introduced and partial rotation of the occiput effected, following which the forceps may be applied advantageously, less for the purpose of immediate traction than to maintain the position of the head. It may even be a question whether this is not the proper treatment when it has become necessary to introduce the whole hand, rather than to limit the operation, as has just been explained, in certain cases to the production of flexion.

Podalic version is an alternative which naturally presents itself for consideration. I am satisfied that, except in cases demanding rapid extraction, version by the feet cannot compete with the procedure described. In addition to the conditions commonly enumerated as more or less contra-indicating podalic version and making it dangerous for either mother or child, primiparity should also be considered, especially in its relation to fetal mortality, by its interference with rapid extraction of the head.

In the application of the forceps, following partial rotation, it may frequently be well to rest satisfied with an approximately correct relation of the blades to the head, to be followed by a more perfect reapplication after the head has descended and rotation also, perhaps, farther advanced.

The application of the forceps without previous rotation and with tips to forehead, in the expectation that the occiput will rotate posteriorly, should be avoided wherever possible and limited to those cases where the head is so deeply and firmly engaged that rectification is impossible or dangerous.

The application of the reversed forceps to the occiput, thereby producing flexion, I have never tried. The procedure is one, probably, rarely to be preferred.

Where the circumstances demand the application of the forceps, with the occiput posteriorly, the blades should be applied rather farther back than in occiput anterior positions, the object being here, as in face presentation with the chin anteriorly, to obtain a larger and firmer hold. The handles will, therefore, be less depressed in these cases. Tractions, under these circumstances, should be backward according to the axes of the succeeding planes, until the head reaches the perineum, then sharply forward, using the symphysis as a fulcrum, maintaining extreme flexion

until the perineum slips over the occiput, when the handles are suddenly dropped and the forceps removed.

This condition is the analogue of face presentations with the chin backward. In both, the presenting part must travel a long distance before the mass engaged can be resolved—in the one instance by extension, in the other by flexion—into its component factors, the head and trunk. Necessarily the dangers to both mother and child are greatly increased.

In conclusion, I desire to emphasize the vital importance of recognizing the position in vertex presentations. To insist that, as a rule, cases of occipito-posterior position should be left for the natural forces to effect delivery—forces which, in the vast majority of cases, are not only entirely adequate, but in these cases will accomplish the object better than the most skilled instrumental or manual interference.

Further, I desire to maintain that flexion is essential to natural rotation; that rotation is frequently delayed until the head is very low; that the character of the pains is a very important factor; that with complete anesthesia the mobility of the head, even when deep in the excavation, is often quite surprising; that in occipito-posterior position the blades of the forceps must be applied well forward to insure a firm hold; and that, after the head reaches the perineum, extreme flexion must be maintained until the occiput has passed over the perineum; and, lastly, that no hard and fast rules can be formulated to cover all cases, but that much must neces sarily be left to the judgment of the operator, based on a considera tion of all the conditions involved.

445 William Street.

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## A NEUROLOGICAL BUST.[1]

By WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

At the seventeenth annual meeting of the American Neurological Association, held at Washington, D. C., September 22-24, 1891, I exhibited a bust,[2] which was designed particularly for the neurologist, as a means of a ready reference in his consultation room, and for the teacher in neurology, as an important aid in the elucidation of facts in class-room demonstration. The features to which attention was called were the fissures of the brain repre-

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

2. *Journal of Nervous and Mental Disease*, December, 1891.

KRAUSS—NEUROLOGICAL BUST.

sented by grooved lines on the head and the electro-motor points of the muscles and nerves of the face, represented by grooved circles. Both sides of the bust were exactly alike.

I have recently improved the bust in several ways and believe its value and efficiency to be greatly enhanced thereby.

The right side shows the relative position of the fissures and convolutions of the brain to the sutures and bones of the skull, the fissures being represented by grooved lines, deep or shallow, according to the size of the respective fissures in the brain. To render them more distinct and visible they have been traced in black. The principal sutures of the cranium are represented by zig-zag lines traced in blue.

The face and neck present the electro-motor points of the muscles and nerves, the muscles being colored red, the nerves yellow.

The left side of the bust reveals the underlying anatomical structure and herein does the new bust differ materially from the old. The skull cap has been removed sufficiently to disclose the left hemisphere of the brain *in situ*, with its fissures and convolutions fairly accurately portrayed.

The dissection of the muscles of the face and neck, the arteries, veins and a few nerves has been skilfully executed and is the work of an experienced anatomical sculptor, aided by the advice of prominent anatomists, insuring the greatest amount of accuracy compatible with work of this kind.

Aside from the scientific worth and importance, the artistic beauty of the bust, as revealed in the plate, will be generally recognized.

CRANIAL REGION.

*Fissures.*—Sylvian fissure, central fissure (Rolando), parietal fissure, occipital fissure, superior frontal convolution (superfrontal), middle frontal convolution (medi-frontal), inferior frontal convolution (sub-frontal), ascending frontal convolution (precentral), ascending parietal convolution (postcentral), superior parietal convolution (parietal), inferior parietal convolution (subparietal), angular convolution, superior temporal convolution (supertemporal), middle temporal convolution (meditemporal), inferior temporal convolution (subtemporal), superior occipital convolution, middle occipital convolution and inferior occipital convolution.

*Sutures.*—Coronal suture, squamous suture, lambdoid suture and sagittal suture.

FACIAL REGION.

*Nerves.*—Trifacial nerve, superior branch; trifacial nerve, middle branch; trifacial nerve, trunk; trifacial nerve, inferior branch; hypoglossal nerve, accessorius nerve, Erb's point (supra-clavicular point), phrenic nerve, brachial plexus, axillary nerve, infraorbital nerve, supraorbital nerve.

*Muscles.*—Frontalis, corrugator supercilii, orbicularis palpebrarum, nasal muscles, zygomatic muscles, orbicularis oris, masseter, levator menti, quadratus menti (depressor labii inferioris), platysma myoides, hyoid muscles, sterno-cleido-mastoid, omo-hyoid, splenicus, trapezius, levator anguli scapuli, triangularis menti (depressor anguli oris), stylo-hyoid, digastric, risorius and levator labii superioris.

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# Clinical Report.

## A CASE OF MALIGNANT DIPHTHERIA SAVED BY ANTITOXIN, INDICATING THE GREAT VALUE OF THE NEW REMEDY.

By SAMUEL G. DORR, M. D., Buffalo, N. Y.

I was called January 16, 1895, to see a thirteen year old girl living at 426 William street. At that time there was a slight swelling of the tonsils, with a small amount of redness, but no grave symptoms. I prescribed the ordinary treatment for such a case.

Four days later, January 20th, I was again called to see the same patient and found her weak, prostrated, voiding black, inky liquid stools; tonsils much more swollen, the redness much darker about the arches of the palate, and a very few white specks on the tonsils and uvula. Gave the usual iron treatment for diphtheria, but yet believed that the case was a severe tonsillitis.

January 21st. Bowels constipated, throat entirely clear of all exudation.

January 22d. Some patches reappeared on the tonsils, red rings about the nostrils and dark red streaks underneath both eyes. Pulse, 120; temperature, 103½°, and slight milky appearance of mucous membrane of nostrils. Began inhalations of mild chloride of mercury.

January 23d. Throat entirely clear of all patches. Nostrils clean. Red rings about the nostrils beginning to disappear. Dark

red lines underneath eyes also beginning to disappear. Very copious catarrhal discharge falling from posterior pharynx. An extensive bronchitis throughout both lungs, finger nails growing dark, skin assuming an ashy shade. Began giving stimulants—carb. amm., nux vomica, digitalis and spiritus frumenti.

January 24th. Patches in throat reappeared in abundance; all symptoms aggravated.

January 25th. More patches appeared, forming a continuous exudate. Cyanosis, or bluish condition of skin of entire body, being of a coffee color; nails very dark. Respiration, 40, short and labored; pulse, 130; temperature, 102°. Right lung almost completely infiltrated with exudate; respiratory murmur nearly absent; left lung almost as bad.

Dr. George E. Fell was called in consultation at 3 P. M., and agreed with me that he had never known a case to recover with similar symptoms in diphtheria. I had decided to use antitoxin, and after obtaining the consent of the family called in Dr. Fell, who had a supply which he had procured from the Pasteur Institute in New York City. This antitoxin was entirely prepared in this country, under the direction of Dr. Paul Gibier. Previous to the injection we both agreed the case was so desperate, that in event of failure it would be unjust to criticise the antitoxin treatment.

At 3 P. M. Dr. Fell injected four ordinary hypodermic syringefuls of the remedy, using an ordinary hypodermic needle without any difficulty. The injections were made into each shoulder and hip. The capacity of the syringe was three cubic centimeters, thus making twelve cubic centimeters for the first injection. The pulse at this time was 107; temperature, 101¾°; respiration, 42. At 7.30 P. M., same day, repeated the hypodermic medication, using fifteen cubic centimeters of the antitoxin. A slight change for the better was noted.

January 26th, at 4 A. M., I was notified that the child was dying, it having been changed from one bed to another; the slight exertion produced complete collapse, leading the family to believe the end had come. I directed a continuance of the supporting treatment, the same as ever, so long as the child could swallow. Soon afterward I telephoned Dr. Fell that the child would probably die and that it would not be necessary to make another visit until further notice. 10 A. M. I telephoned Dr. Fell that the child was better, and invited him to call and give the third treatment of anti-

toxin. This was done at 11 A. M. of the 26th inst. Marked improvement was noted in the patient, the temperature had fallen two degrees to 99¾°; pulse not changed; general appearance much better, movements of eyes more natural, child more interested in her surroundings, exudation on tongue and throat quite extensive but loose in character; lungs clearing up, respiratory area increased and expectoration quite free.

January 27th. The improvement still continued. At 11 A. M. temperature, 100½°; pulse, 100. Cyanosis entirely passed away; lungs almost entirely cleared up; patient stronger, had taken some food; heart's action much improved and at this time, about forty-eight hours after the antitoxin treatment had been instituted, a case hopeless in character, malignant, had been transformed into one which gave every hope of ultimate recovery.

January 27th. Evening, pulse, 97; temperature, 99½°.

January 28th. Afternoon, temperature normal, pulse, 97; lungs virtually cleared up.

This case should undoubtedly influence many in favor of the treatment who are now opposed to it, or do not believe in its efficacy; it is not a renewal of the tuberculine or the Brown-Sequard craze. After an experience of twenty years, in which I have seen several hundred cases of diphtheria each year, this is the first time that I have ever known of a recovery from similar conditions. Dr. Fell, who has also had many cases of a zymotic nature, believed that the child would certainly have died without the antitoxin treatment.

It must be noted that the best treatment for diphtheria known to the profession was kept up from the beginning to the end of the treatment. The recovery, however, undoubtedly was due to the antitoxin. In this case a general desquamation of skin occurred during the patient's convalescence, a phenomenon quite unusual in diphtheria.

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SALICYLIC ACID AN OXYTOCIC.—Vineberg (*N. Y. Med. Jour.*) finds this special action of the drug upon the uterus to be sufficient to establish the following conclusions: Salicylic acid and its compounds may be found useful in scanty and delayed menstruation. They should not be administered to pregnant women who have a predisposition to abort or who suffer from menorrhagia and metorrhagia. Their administration should be watched carefully in all cases of pregnancy, and on the appearance of any "show," or anything resembling labor pains, they should be discontinued.—*Polyclinic.*

# Reports of Societies.

## THE EIGHTH PERIODICAL INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, HELD AT EDINBURGH, AUGUST 7–11, 1894.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

(*Concluded from page 411.*)

Priestly Smith (3) had done the scleral puncture as an adjunct to iridectomy in the treatment of glaucoma fifty times in non-congestive cases under cocaine anesthesia, in others under chloroform. A valvular puncture is made with a von Grafe's cataract knife introduced through the sclera at least five millimeters back of the corneal margin and then rotated and removed. A small, leaking puncture remains. No internal hemorrhage has ever occurred. After iridectomy it prevents the lens being pushed forward; before iridectomy it has the same effect. It may be of use in some cases where iridectomy is inadvisable.

Abadie said that he had seen many glaucoma patients subjected to sclerotomy, but not one had ever been definitely cured, while iridectomy had preserved the sight of many. He accepted Priestly Smith's method of puncture as a means of facilitating iridectomy, but without attributing to it any curative value.

Parent had had recourse to puncture of the sclera several times and always with complete satisfaction.

Pflüger had for several years used posterior sclerotomy in severe cases of glaucoma as a preliminary to iridectomy, and his experiences coincided precisely with those of Priestly Smith.

McHardy, of London, had found the iridectomy complicated and not facilitated, immediately after the scleral puncture from the marked softening that the latter produced. He made very large iridectomies in glaucoma and in the malignant form he obtained successful results by extracting the lens.

Power had performed an operation which he said was almost identical with that of Priestly Smith and which was originally proposed by Mr. Hancock, of the Royal Westminister Ophthalmic Hospital. It was done with a Beer's knife, which was passed into the vitreus through the sclera three or four millimeters from the margin of the cornea. It is in acute glaucoma that it is most successful. He had almost given up operating in chronic glaucoma.

Menacho had practised the old posterior sclerotomy and was satisfied that it was efficacious in relieving the acute symptoms of glaucoma.

Priestly Smith concluded the discussion by reminding his hearers that his paper referred to scleral puncture as an *adjunct to iridectomy* and not as an independent operation. The withdrawal of a small quantity of fluid from the vitreous chamber does not, cannot, in fact, immediately alter the depth of the anterior chamber.

Mules (6 *a*) had performed a new operation for ptosis, in which a small elliptical piece of cartilage is removed and, by wires carried to half an inch above the eyebrow, the lid is drawn up to the required degree.

Little had seen the good results in a case operated on by Mules.

Pflüger (7) recommended drainage of the anterior chamber in infections of it, as well as in keratoconus and in some cases of glaucoma and detachment of the retina. He uses a small piece of guttapercha in the form of a cross, the short part being introduced through an opening in the cornea to the depth of about two millimeters into the anterior chamber. The other parts are fixed under the conjunctiva. If injections into the anterior chamber are necessary, this drain must be frequently changed. In conical cornea it may remain several days and its use should be often repeated.

Walker (8) had devised the following operation for relieving tension in chronic glaucoma: Dissect a small flap of conjunctiva about three to six millimeters close to the edge of the cornea; then thrust a small knife, with the base toward the iris, into the anterior chamber at the margin of the cornea and into this opening push the conjunctival flap.

The epithelial surface of the conjunctiva not uniting with the cornea, a permanent fistula and continuous drainage are established.

Landolt (28), after twenty years' attention to strabismus, had come to the conclusion that, in its correction, muscular advancement was better than tenotomy. After tenotomy the excursions of the eye are often limited, the caruncle often becomes retracted, the power of the operated muscle weakened and the eye sometimes has the appearance of being more prominent than the other. On the other hand, advancement gives results as good and complete without any of the drawbacks of a tenotomy and it is without

danger. For example, there is no risk of over-correction, no insufficiencies, no retraction of the caruncle and no malposition of the eyeball.

In convergent strabismus he preferred to simultaneously advance both external recti muscles and follow the operation by orthoptic exercises. In muscular insufficiencies or slight strabismus a unilateral advancement would be sufficient. In divergent strabismus a tenotomy of the external rectus gives only a metric-angle of correction, while a complete correction may be obtained by advancement of the internal rectus.

It is only in high degress of strabismus that he combined a tenotomy of the antagonistic muscle with an advancement, and then the tenotomy is done sub-conjunctivally and without further detachment from the surrounding tissues.

Swanzy did not think that simple tenotomy should be discarded in favor of advancement to the extent recommended by Landolt. He believed the rules of von Graefe still hold good. He never used advancement alone, but frequently combined tenotomy with it in extreme cases. He found difficulty in deciding how much of the tendon should be removed to produce the desired effect. He also found that advancement sometimes causes disfigurement by reason of an unpleasant red lump being produced at the point of the new insertion. Does Landolt have any difficulty in securing a flat cicatrix ?

Pannas was of the same opinion as Landolt in regard to the superiority of advancement, especially in cases due to paralytic insufficiency. In concomitant strabismus, on the other hand, in which the equilibrium is not disturbed by paralysis or retraction, but by insufficient convergence, tenotomy is more certain. Advocates of advancement admit that it frequently fails to afford relief in the divergent strabismus of myopia. For these reasons he employs advancement merely as an adjuvant to tenotomy in marked divergent and in acute paralytic strabismus.

Roosa had used the method of advancement as a substitute for, or as an adjuvant to, tenotomy in very high degrees of convergent strabismus, or when one or more tenotomies had been performed. But to substitute advancement for tenotomy on account of the danger of diplopia, was to make a change from a slight to a more serious operation. Advancement should not be used as a general substitute for tenotomy. All refractive errors should be corrected.

Gruening, of New York, endeavored to avoid the more serious operation of advancement and obtained very satisfactory results, even in divergent strabismus, by the simple operation of tenotomy.

Stevens said that equality of rotation in all directions must be maintained in order to obtain the best results in strabismus operations and the perfect union of images in all positions. To maintain such equality, relaxation of corresponding muscles must be made. Tenotomy of one muscle and shortening of its opponent of the same eye is inconsistent with this principle. He believed that in most cases of strabismus the defect may be relieved and binocular vision obtained with perfect rotation in all directions by carefully graduated tenotomies on both eyes to be repeated after some months. But in every case the various forces are to be regarded.

Landolt replied that the criticisms of his esteemed colleagues proved that they do not examine, treat, operate or follow up their patients as he had done. Not one, for instance, had mentioned the measurements of the excursions of the eyes, of convergence, or of divergence, before or after operation. Yet this should be done. He agreed that great stress should be laid upon the correction of optical defects in the cure of strabismus. Operation is not sufficient to do away with a squint, but is only a step in a long and carefully directed orthoptic line.

Thier (31) had operated on thirty-eight cases of high myopia by discission and absorption of the crystalline lens. He passes the knife through the whole thickness of the lens and the posterior capsule. Rapid swelling of the lens is desired, and if cloudiness and swelling do not develop within eight or ten days he repeats the discission. Young patients are most suitable, but he had operated in one case successfully at forty-eight years of age.

He had operated on thirty-eight patients. In eleven he had operated on both eyes, and in sixteen on one eye. In nearly all a marked improvement of vision had been produced.

Fukala (32), in speaking on this same subject, said that he operated by discission and followed this by paracentesis and evacuation of the lens. He operated on all suitable cases under forty years of age, avoiding those affected with chronic choroiditis or detachment of the retina. He was opposed to the immediate

extraction of a transparent lens, as he thought it liable to be followed by a dangerous hyperemia of the choroid.

Schmidt-Rimpler (Göttingen) considered it necessary to watch the patients for a long time after one of these operations. In one case, operated by discission on one eye, the myopia had progressed in the same manner in the aphakial eye as in the other, with the development of the same choroidal lesions. From this he concluded that, in young persons, the double operation was preferable.

Pflüger had operated on forty cases with good results. He differed with Thier and Fukala in believing that choroidal changes are not a contra-indication. There are few cases of high myopia without them. He does not dare to divide the lens as deeply as does Thier, for the vitreous humor might pass into the anterior chamber and out through the corneal wound. The tension should be watched after discission, and if it occurs it may be controlled by repeated paracentesis.

Thier, in reply, said that with good antisepsis he had little fear of the presentation of the vitreous outside, and the large discission hastened the termination of the treatment and left an unobstructed pupil. Furthermore, the contraction of the capsule, which might otherwise occur and cause irritation, is prevented.

Fukala said that, as a contra-indication to the operation, he referred to those choroidal changes which affected the macula and those which caused numerous exudates into the vitreus.

Noyes (33) described an operation which he had performed in a case of closure of the pupil from irido-cyclitis after cataract extraction. With a von Graefe's cataract knife he makes a section on each side of the cornea, and before withdrawing the knife plunges the point into the iris near the center. If there is hemorrhage he injects into the anterior chamber saline water by one of these openings and out by the other. When the hemorrhage ceases, he incises the iris with de Wecker's scissors, on both sides. The hemorrhage is again treated by saline injections into the anterior chamber, as before. Finally, the flap of iris is drawn out, on either side, by a hook and cut off.

Darier referred to a similar operation which had been done by Abadie, in which the iris was incised in the form of a V and the iris flap drawn out from the opposite side and cut off.

McHardy (41) reported the results of treatment of immature cataract by preliminary iridectomy with trituration of the lens. He had had three different series:

| | 1st Series. | 2d Series. | 3d Series. |
|---|---|---|---|
| Number of cases | 25 | 100 | 49 |
| Unduly early extraction required | 4 per cent. | 2 per cent. | 4 per cent. |
| Second and third trituration required | 28 " " | 9 " " | 4 " " |
| Troublesome, but controlable, iritis | 12 " " | 17 " " | 2 " " |
| Slight loss of vitreus during extraction | 28 " " | Not noted. | 4 " " |
| Total failure to restore sight | None. | 3 per cent. | None. |

Comparative observations were also made in cases in which a preliminary iridectomy had been done with and without trituration:

| Operation. | With Iridectomy. | Without Iridectomy. |
|---|---|---|
| Cases | 37 | 21 |
| Cortex semi-fluid, non-sticky | 80 per cent. | ——— |
| " sticky | None. | 33 per cent. |
| " hard | 20 per cent. | 66 " " |
| Cystoid cicatrix | 3 " " | 10 " " |
| Secondary capsulotomy | 21 " " | 35 " " |

He had been using this method of trituration of the lens for nine years. He obtained complete ripening in immature senile cataracts in from eight days to eight weeks, and the procedure was a safe one. He has the eye well under the influence of atropine at the time of the preliminary operation. After waiting six to eight weeks, he extracts with as much safety and as good results as in cases where the maturity was spontaneous, and it was free from the evil effects which follow the removal of immature cataracts.

Noyes believed there was a place for trituration of immature cataracts. He found the indication in cases of soft cataracts, with broad striæ, which, if operated on, would leave a large quantity of cortex behind to excite iritis and produce a bad secondary cataract. But this trituration and maturation can be perfectly well done without iridectomy. Within the past five years he had operated on cases of sclerosed lenses, regardless of the amount of transparency, and he had found that where sclerosis of the nucleus could be discerned, the cortex was as perfectly evacuated as if the whole lens were opaque. The incision included almost half of the cornea, no iridectomy was done, and, if some obscurity resulted, irrigation with a warm physiological solution of common salt cleared the pupil. The stream was directed by a rubber bulb, without introducing its point into the wound. He felt less anxiety, however, in a case in which the lens was fully opaque.

Hill Griffith, of Manchester, had employed trituration with advantage, and recalled some of his experience.

Theobold (43) advocated the use of large probes in the treatment of strictures of the nasal duct, and described his probes and his method of using them, all of which has long been familiar to American ophthalmologists.

Grüning had had excellent success with Theobold's probes, and confirmed Theobold's experience.

Roosa was not in favor of Theobold's method exclusively. Many cases are purely those of catarrh, and not of stenosis, and very little and simple treatment is often all that is necessary. He was well satisfied with his own results in employing Bowman's method, with such deviation as would suggest itself to an intelligent man.

Thompson, of Indianapolis, had treated such cases during the last twenty-three years by all sorts of methods. He began with large probes about fourteen years ago and had used them in every way, frequently and less often, and in some instances "large enough for a horse." Yet he has had patients return in less than a year, sometimes earlier, with the ducts just as small and the disease as bad as before treatment.

Risley, of Philadelphia, thought the treatment by large probes was opposed to the normal physiological process. An opening in the canaliculus sufficiently large to admit the largest of Theobold's series, destroyed the physiological relation and function of the parts. The lachrymal duct, in its normal condition, is a capillary tube and not a drain-pipe.

Chibret, in view of the fact that probing does not cure all cases of epiphora, had found much relief in diminishing the amount of secretion by ablation of the inferior lachrymal gland, according to the method of de Wecker. This reduced the secretion to one-fourth.

Priestly Smith favored wearing for long periods lead or silver probes, with the upper end bent so as to lie in the open canaliculus.

Lee, of Liverpool, recommended prolonged irrigation of the lachrymal passages, through a perforated tube, with some antiseptic fluid, particularly in blennorrhea of the sac and duct.

Argyll-Robertson said that he was personally cognizant of the employment of very large probes for eighteen years, which were introduced by Mr. Couper, of London, and he thought that such credit as attaches to this procedure should be given to him.

Theobold closed the discussion by saying that relapses undoubtedly occurred after treatment by his method, but such relapses

were extremely rare. He thought their employment did not destroy the drainage-function of the passages.

Stoelting (44) performed repeated sclerotomies for hydrophthalmia, the patient being under chloroform anesthesia to prevent all sudden movement. The eyes are then bandaged closely, the first time for three days, the second for two days, and each time under chloroform. On the fifth day myotics and cold compresses are used. For each eye two sclerotomies were necessary. The process of cure lasted on an average fifty days.

Gutmann believed congenital hydrophthalmia is curable, if an operation is done early. He had found better results from iridectomy than sclerotomy.

Pflüger had been unfortunate in operating on many cases. The only case in which the cornea returned to its normal size and transparency, as well as function, was treated by sclerotomy, but as a routine method this operation cannot be recommended.

Thier thought good results could be obtained not only from iridectomy, but also from sclerotomy.

Dufour believed that, if the intra-ocular pressure could be reduced, even for a short time, the hydrophthalmia would be relieved. Myotics would sometimes do this; but if they failed, an operation would be necessary.

Malgat (45) had concluded that medical and hygienic treatment of conjunctival granulations were as imperative as surgical measures. For the surgical treatment he employed electrolysis, using a simple Gaiffe battery of seven pairs, provided with a rectilinear collector. The conductor carrying the needle is connected with the negative pole. With this every granulation (trachoma) is destroyed by applying the point of the needle successively to each one. Several sittings are required at intervals of two or three days. It is necessary to reverse the upper eyelid so as to expose the upper retrotarsal fold or resort to excision of it. The conjunctiva becomes smooth and normal without a trace of cicatrization. The electrolysis acts chemically, antiseptically, and as a means of modifying diseased tissues.

Chibret had investigated the etiology of trachoma for twenty years, and he believed that sun and air had nothing to do with its production, but that it was principally a disease of race, as had been shown by Swan Burnett, Hirschberg and himself.

Chavallereau (47) had treated two cases in whom paralysis of the oculo-motor nerve persisted eight months and six and one-

half months respectively, in spite of medical treatment. He cut the external rectus muscle in each case and the paralysis entirely disappeared.

MISCELLANEOUS PAPERS.

Leber (23) recommended a new method of hardening and preserving eye-specimens by means of formol. The active principle of formol is formaldehyde, which is dissolved in water, to which is added a little methylic alcohol in the proportion of 40 to 100. To harden an eyeball the formol should be mixed with ten to thirty parts of water, the best proportion being about one to ten. Formol had been recommended the year before by Dr. F. Blum for the preservation of vegetable and animal substances and later by Dr. Edinger for the eyes.

Formol has no attraction for water, hardens tissues by coagulation and no shrinking takes place. It acts as a fixative for histological structures, requires a very short time (from one to a few days), the colors and even a part of the transparency of the media are preserved, the vitreus remains transparent and keeps its normal consistence and the common procedures of staining and embedding in celloidin, or paraffin, can be applied as well as after hardening in Müller's fluid, or by other methods, and no washing out of the hardening substance is necessary. After hardening, the specimens can be preserved in the same fluid or they may be mounted in glycerine jelly.

Swan Burnett (35) defended that system of measuring and designating prisms which made the prism-diopter (P. D.) or the centrad (Cr.) the standard or unit. He suggested as an exponent the sign △, instead of that of the degree (°).

Savage (48) read a paper on the relation of oblique astigmatism to the oblique muscles of the eyes and gave practical demonstrations of the principles for which he contended. This subject is so new and its importance seems so great that quite a full abstract is hereby submitted.

The simple function of the oblique muscles is to counteract the torsion effect of the action of the superior and inferior recti and also of the external and internal recti, if by malposition these are inserted too high or too low. In other words, their function is to keep the normal vertical meridian of one eye parallel with that of the other in obedience to the law of corresponding retinal points. In oblique astigmatism the retinal images are distorted and in

obedience to the same law, the oblique muscles are further brought into action to harmonize the retinal images. Thus, when the meridians of greatest curvature diverge above, the inferior obliques make the effort to harmonize the images, and when they converge above, the effort falls on the inferior obliques.

In applying a cylindrical glass for the correction of astigmatism, whether myopic or hypermetropic, there is in every case an arc of distortion for the superior obliques and also an arc of distortion for the inferior obliques. These two arcs always make 180 , but are not always equal. They are equal only when the axes of the cylinders are required at 90° or 180°. For plus cylinders the arc of distortion for the superior obliques is always wholly or in greater part in the lower temporal quadrant, while the arc of distortion for the inferior obliques is always wholly or in greater part in the lower nasal quadrant. The reverse is the case with the minus cylinders. The arc of distortion for the superior obliques is not always equal to the arc of distortion for the inferior obliques, but the one always supplements the other, so as to make 180°. To illustrate : If the arc of distortion for the superior obliques is 120°, that for the inferior is 60°. The point of maximum distortion in either of these arcs is just 45° from the vertical. The practical feature of this matter resides in the fact that we have within our power, by temporary rotation of cylinders, either plus or minus, in the proper arc from 5° to 10°, to relieve the patient of metamorphopsia and other uncomfortable symptoms which are so common in the great majority of cases of oblique astigmatism. Gradually these cylinders must be rotated back to the proper point, when the patient will remain comfortable. This is of special importance in cases where the obliques are insufficient. As the author of the paper has before stated, insufficiency of the superior obliques is a very common condition; therefore, whenever oblique astigmatism is such as to call into activity the inferior obliques, it becomes a matter of very great importance in correcting this condition, to resort to the rotation of the cylinders so as to gradually transfer work from the inferior to the superior obliques. To illustrate : We have a case of hypermetropic astigmatism of 2°, the meridians of greatest curvature converging above. This uncorrected astigmatism distorts the images so as to throw a greater amount of work on the inferior oblique muscles. Correct this astigmatism by a plus cylinder, the distortion is at once reversed and the work to which the inferior obliques have been accustomed

is at once transferred to the superior. The latter being weak, they do not take this extra work kindly. By revolving the axes of these cylinders towards 90° for each eye, through an arc of 5° or 10°, the images are distorted in the same way that the astigmatism itself distorts them, but objects are seen more sharply than if the lenses had not been given. This artificial distortion, while sharpening the images, leaves an excessive amount of work to be done by the inferior obliques. Gradually the cylinders are revolved back to their proper positions, and in this way, by small degrees, the work is transferred from the inferior obliques to the superior.

### INSTRUMENTS.

Darier (13) exhibited aseptic collyria, an aseptic case for dressings, and a form of instrument for the shadow-test.

Risley (38) also showed an apparatus of his own construction for the shadow-test.

Ayres (39) presented a forceps for removing tarsal cysts and granulations of the conjunctiva.

### THE NEXT MEETING OF THE CONGRESS.

After the conclusion of the reading of the papers, the congress then took up for consideration the question of the place and time of the next meeting. Prof. Snellen, on behalf of his Dutch colleagues, invited the congress to hold its next session in Utrecht, Holland, and assured the members that they would do all in their power to make it interesting and profitable. He proposed that it be held in about five years hence, but at such a date that it would not clash with the meeting of the International Medical Congress.

Dr. Meyer, of Paris, said he had been commissioned by the Ophthalmological Society of Paris, and also by his French colleagues, to invite the congress to hold its next meeting in Paris in 1900, when the great international exhibition would be open in that city. Meetings of many other scientific bodies would be held at that time, and he thought it would be a good time and place for this congress. He could assure the congress of a most cordial and fraternal welcome.

Prof. Hansen-Grut, of Copenhagen, seconded the proposal of Dr. Snellen. He was afraid, if they went to Paris in 1900, there would be so many things to be seen outside that very little work would be done by the congress.

On putting the question to vote, the invitation and proposal of Prof. Snellen were accepted.

Prof. Snellen thanked the congress for this decision, and named as associated with himself on the committee of organization, Dr. Hansen-Grut, of Copenhagen; Dr. Doyer, of Leyden; Dr. Argyll-Robertson and Dr. Berry, of Edinburgh.

### CLOSING OF THE CONGRESS.

At this point Dr. Noyes, of New York, took the platform and, in a felicitous speech, proposed that hearty thanks be given to the official authorities of the University, and also to the College of Physicians and the College of Surgeons, for the complete, satisfactory and agreeable manner in which they had put at their disposal the facilities which the congress had enjoyed. He recalled a visit which he made to Edinburgh thirty years ago, and, noting the great expansion which the city had undergone in the interval, said he had been told that that expansion was due not to expansion in trade, in commerce, or in things of material character, but had been due to the expansion of learning. He commended the University for having chosen as the symbol which crowned the dome of its old buildings the figure of a youth looking forward to the career in front of him. That symbol represented an idea. It represented the beginnings of what they themselves were deeply concerned in. They were men of varied periods of life, but he was perfectly sure there was not one who had come to that meeting—coming as they had done from all parts of Europe and America—in whom did not burn the thirst for learning. In that institution they found a flame which should still further illuminate and warm their hearts; and for all that those gentlemen had done in helping to carry forward successfully the meeting which now came to a close, he was certain that they would unite with him in rendering them most sincere and hearty thanks (applause). He begged to couple with his proposal a vote of thanks to the officers of the congress and to the members of the medical profession in the city (applause).

Sir William Muir, the Principal of the University, acknowledged the vote of thanks on behalf of the University, expressing his sense of the great service which the ophthalmological congress rendered, not only to medical science, but in the relief of humanity. Dr. Young, Treasurer of the Royal College of Physicians, and Dr. Littlejohn, President of the Royal College of Surgeons, returned thanks on behalf of their colleges, and expressed the pleasure they had experienced in entertaining the congress. The congress then rose.

(*Concluded next month.*)

# ANNUAL REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS, REPRESENTING THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SECRETARY'S OFFICE, 78 WEST 82D STREET,
NEW YORK, February 5, 1895.

*To the Medical Society of the State of New York:*

GENTLEMEN—During the past year the exemptions from the medical licensing law having nearly ceased, the law placed on the statute books largely through the energetic efforts of this society may be said to have been in normal action. The following statistics furnish a fair idea of our work during the past year, from January 1, 1894, to January 1, 1895.

(These statistics should not be confused with those prepared by the regents examination department, as their records are made up annually to conform with their general method of compilation, which is based on the opening and closing of the academic year, August 1, 1893, to July 31, 1894.)

Number of candidates actually examined, 536.

| | Examined. | Passed. | Per cent. Rejected. |
|---|---|---|---|
| Before the State Board of Medical Examiners, representing the Medical Society of the State of New York | 470 | 316 | 32.7 |
| Before the State Board of Medical Examiners, representing the Homeopathic State Medical Society | 59 | 46 | 22.0 |
| Before the State Board of Medical Examiners, representing the Eclectic Medical Society of the State of New York | 7 | 3 | 57.1 |

| | |
|---|---|
| Number of candidates rejected a second time | 17 |
| " " " three or more times | 6 |
| " " " during the year who have been unable thus far to receive a license | 54 |
| Number of defective registrations corrected | 31 |
| By state board | 22 |
| By homeopathic board | 3 |
| By eclectic board | 6 |

It was thought, in 1891, that the average number of candidates who would yearly appear before us for examination would be about 400. This estimate was based on the theory that the law admitting candidates to examinations was so stringent as to exclude all

not well prepared to pass our tests. Candidates for admission must be of good moral character, as certified by two reputable practitioners of medicine; they must be graduated doctors of medicine who have attended at least three full courses of lectures at a registered medical school in three different years and must have met the preliminary education prescribed by law. These exactions shut out the incompetent and in consequence the percentage of rejections must be considered in this light. The discrepancy in the estimated and actual number of candidates is due to two causes. Whereas, prior to 1891 the number of physicians locating yearly in the state was from 700 to 800, (and this can only be estimated, as no exact figures are obtainable,) now there are fewer than 400. The applicants numbered 536, as above stated. The natural increase in population might account for a corresponding increase in the number of medical men; but the main cause is the fact that our state licenses have grown to be documents of such importance that most of the states having boards of medical examiners accept them as licenses to practise without exacting added medical tests.

The selection of questions properly grouped for examination purposes is a task to which much of our time has been devoted, and we invite criticism of our work in this particular with the hope of improving on a system which has been generally commended. It may be of interest to the society to know that the questions are originally framed by all of the examiners, each chair through its three representatives submitting, as occasion requires, 180 questions. A total of 1,080 questions thus obtained is referred to the question committee, composed of two members from each board. Here the questions are carefully studied and sifted, only such being accepted as are considered fair, that is, as requiring knowledge which every practitioner of medicine should have. To the editor of the committee is then referred all accepted questions, who in turn groups them in sets of fifteen in each topic, covering as nearly as possible every sub-branch of the subject under consideration. On requisition of the regents these groups are forwarded to Albany, and the regents become responsible for printing and for the language used in framing the questions for publication. Thus far twenty-one regular and three special examinations have been held, at which 2,520 questions have been asked or 360 questions in each topic. A duplication of questions thus propounded and published to the world is not desirable, but we have now

reached a point where this is becoming essential if we desire to be freed from the charge of propounding queries which belong in the special rather than in the general field of medicine. Other similar bodies of examiners submit and publish questions which indicate a far more difficult test for license, but the method of marking must be comparatively lenient as judged by the percentage of rejections. We feel it our duty as examiners not to prevent a given percentage of those applying from being licensed in order to maintain a standard, preferring to act favorably on the application of all, no matter how great the number, whom we believe to be competent to practise medicine.

Under the provisions of the law we are permitted to indorse as sufficient for practice the licenses issued by other state boards of medical examiners, provided the standards of these bodies are not lower than ours. Numerous applications from various states have been received for this indorsement, but on investigation we have in each instance found that the standard was not sufficiently high to warrant us in approving the documents submitted. We earnestly appeal to the society to continue the work, inaugurated by the committee on legislation in 1892, of having bi-monthly transcripts of registration made from the books of the county clerks throughout the state. In this manner only can a comprehensive record of the registration throughout the state be secured, thus furnishing the opportunity of verifying or correcting the work of the county clerks. During the year many letters have been addressed to us calling attention to persons who are practising medicine in various parts of the state without legal authority. It has been our custom to investigate all such cases and to advise prosecution where the offender is a new-comer; but when the case is one which has existed before September 1, 1891, viz., before the passage of the law under which we were called into existence, we have advised against interference. The unfortunate dropping of the word misdemeanor from its former place in the work of codifying the medical laws as reported to the legislature by the revision committee two years ago, has robbed the statute of much of its worth. Through the energetic efforts of your committee on legislation both branches of the legislature last year unanimously passed a bill correcting this defect, but notwithstanding heroic efforts on the part of the profession throughout the state, the then governor vetoed the bill. In order to maintain the dignity of the licensing power now entrusted to our care, we earnestly urge that

the committee on legislation be again instructed to introduce this measure in the present legislature in the hope of restoring the statute in its integrity.

Since our last meeting two adjoining states have established state boards of medical examiners, the laws appointing them being modeled after our own.

The preliminary education of medical students and candidates for the licensing degree in this state is not satisfactory. While the standard is far above that established in other states, it is still insufficient and not on a par with the requirements exacted from students in other professions in our state. The following was unanimously carried at a meeting of our board, with the intention that it be embodied in our report to your honorable body :

*Resolved*, That, in the opinion of this board, the best interests of the public and of the medical profession would be materially advanced by gradually increasing the minimum requirements as to general preliminary education, till no candidate be entitled to matriculate in 1897 at a degree granting medical school in this state who has not completed at least a full high school course.

Respectfully submitted.

WILLIAM C. WEY, M. D.,
*President.*

MAURICE J. LEWI, M. D.,
*Secretary.*

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TO MILITARY AND NAVAL MEDICAL OFFICERS.—The undersigned members of the committee on litter appointed by the Association of Military Surgeons of the United States to report at the approaching annual session, (Buffalo, N. Y., May 21, 22 and 23, 1895,) a desirable form of military litter for the comfortable, safe and expeditious transportation of the sick and wounded, solicit from medical officers of the national services and the national guard of the several states suggestions, plans or models of such an appliance to be delivered to either of them at their respective addresses on or before the 1st of April, 1895. Albert L. Gihon, medical director, United States Navy, United States Naval Hospital, Washington, D. C.; John Van R. Hoff, major and surgeon, United States Army, Governor's Island, Harbor of New York ; Myles Standish, captain and assistant surgeon, M. V. M., No. 200 Dartmouth street, Boston, Mass.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. MARCH, 1895. No. 8.

## STATE EXAMINATION FOR MEDICAL LICENSE.

THE annual report of the state examining and licensing board, published in another column, furnishes interesting reading for all physicians who favor improved methods in medical education. This ought to mean every graduated physician, but, sadly enough, it does not if we are to accept their actions and statements, implied or declared, as truthful. That any physician of education should be opposed to state examination for license in this day and age is beyond our understanding.

The report in question embraces the work of the board of examiners for the year ending December 31, 1894, and should not be confounded with the annual report of the regents, which is for the academic year ending July 31, 1894. The difference in time here indicated will account for any apparent discrepancy in annual statistics between the two reports.

The board very generously invites criticism of its work with a view to improve its practices, hence we feel at liberty to make suggestions. One of the most important subjects relating to this examination at the present time is that of the selection of questions to be propounded to the candidates. While in the main the questions submitted by the board have been satisfactory, yet in certain instances it cannot be denied that they have been defective in meaning or faulty in expression. One of the principles to be borne in mind in framing these questions is, or should be, that they are not to be propounded to undergraduates; but, on the other hand, the questions are to partake of the nature and character of post-graduate interrogatories. Moreover, they are not to be framed on a basis of the teachings of the past, nor yet should they be so advanced as to deal with vague theories. They should be emi-

nently practical; they should deal with the medicine of the present and each one should be comprehensive enough to test the applicant's knowledge on the subject dealt with. No question should be asked that permits of a categorical answer, or an answer of such simplicity that a single phrase of two or three words inevitably merits a marking of ten points. Such questions tend to make the candidate's average unduly high.

Each series of questions should be direct and positive rather than indirect and negative. Each one should bring out some prominent principle of the branch of medicine to which it pertains. They should not, however, be too general in their range. Recent graduates in medicine, as a rule, have but little practical knowledge, and their generalizations are based upon theories taught them in the schools; hence, any vagueness in the construction of a question places candidates at an unfair disadvantage.

From all points of view it seems to us that the proper framing and propounding of questions is one of the most important functions with which the board at present has to deal. A great responsibility devolves upon the question committee and especially upon the editor to whom all accepted questions are referred. He must not only prevent the asking of improper questions, but he must be sure that every question is professionally and grammatically correct. This officer has a delicate and important work in hand which cannot be performed in a superficial or hasty manner.

Intimately associated with the subject of appropriate questions is that of proper markings. It matters not how befittingly a group of questions may be propounded if they are inadequately or unbecomingly marked. To place a high value on a mediocre answer is to do the state an injustice, while equal wrong may be done the candidate in undervaluing his efforts. Nevertheless, the aim of the board should be, in our view, constantly toward improved methods and a higher training of physicians; hence, the lines must be drawn tighter and tighter as time advances.

The state commission, confessedly, should not be awarded to imperfectly educated or inadequately equipped physicians, nor should it be withheld from those who have properly earned it. Those cases that lurk on the border line are of the greatest responsibility, and are those wherein the stamina and judgment of the board are brought to their highest test. Doubtful cases can wait. If a candidate is rejected through error, this is of speedy correction and swift remedy, but if the state license is given to one inadequately

equipped, the error is irremediable and its results will appear in the annual mortuary statistics of the state. The state has no need of incompetent medical men, and the yearly death-rate will be in direct ratio to their incompetency.

It must be humiliating for the members of the examining board to affix their signatures to a license issued to a man with a defective English education, no matter how readily he may answer the medical questions. Nevertheless, this is one of the defects of our system. The law does not compel a sufficiently high standard of preliminary education to prevent this absurdity, and the colleges do not seem to take sufficient pride in the matter to enforce a high standard of preliminary training in the absence of a law on the subject. Hence, it is with satisfaction that we point to the resolution adopted by the board and appended to its report. It must not be forgotten, however, that the medical practice law has conferred one benefit upon the public that is beyond estimated value. It compelled the colleges to teach three years, instead of two as heretofore; it compelled them to increase the length of the scholastic year, and it enforced an increase in the number of teaching chairs in the schools. These improvements alone are worth more to the people than all the time and money expended during the ten years' struggle for the establishment of the system.

But the end is not yet. The trend of public opinion is in the direction of further lengthened terms for medical study. The Yale Medical School faculty has appointed a committee to prepare a plan for the extension of the present three years' course to four years. Other schools have already adopted the plan, and it will not be long before New York will be taking her place in the procession that is keeping step to the tune of four years of college training. Let our colleges put on their marching boots and be ready to head the column.

But we digress. We have nothing but commendation to bestow upon the board for its work during the three years and a half of its existence. It has overcome difficulties that seemed well-nigh impassable and it has achieved success in spite of opposition. Let it go on with its good work, let it ever increase its efficiency, elevate its standards and improve the status of the profession in the Empire State. It will then deserve to receive the approbation of every physician worthy of the name within her borders.

# TOPICS OF THE MONTH.

A DESERVED rebuke has been administered to the Chicago Summer School of Medicine by the *Indiana Medical Journal.* The school referred to has, through its dean, Dr. William F. Waugh, issued a circular to physicians, stating that the college has placed at the disposal of the dean, a number of scholarships to enable students of limited means to be admitted to the classes at a material reduction from the regular fees. The circular invites physicians to furnish the names of "any such gentlemen," and affirms that the courtesy will be appreciated.

The *Indiana Medical Journal* says that it had hoped that this underhand bidding for students was about extinct among reputable colleges, and declares that institutions that have two prices are not in good standing and should be discountenanced.

The *Cincinnati Lancet-Clinic*, too, takes a hand in this criticism, and affirms that such bidding for students on the part of any medical school is reprehensible and should exclude an institution pursuing this course from membership in the American Medical College Association.

We quite agree with our contemporaries in their castigation of the course pursued by the Chicago school. It is a sign of healthy improvement when medical journals of standing and character speak out in unmistakable terms in condemnation of such reprehensible practices.

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IN PREVIOUS issues of the JOURNAL we have alluded to the electric railway ambulance adopted by the city of St. Louis for the transportation of sick and wounded. The *Medical Mirror* for January, 1895, gives an account of the inauguration of this service, which was celebrated by a dinner given by Dr. George Homan, health commissioner, Thursday evening, December 27, 1894, to a number of the city officials, officers of various railroads and a select party of physicians and friends. The *Mirror* says :

> The occasion was one long to be remembered. The early part of the evening was taken up by a trial trip from the City Hall to the City Hospital and remoter points. The guests were filled with admiration for the beauty and general efficiency of the interior finish and the ease with which the car was carried.

In the next issue of the *Medical Mirror* we shall present illustrations

of the interior and exterior of this car, together with a description of the same.

Some one has well said: "He who maketh two blades of grass to grow where one has grown before, is a benefactor to the state," but it may truly be said that he who adds to the sum of pleasure and relief from pain of the unfortunates of the world, is indeed more than a benefactor to the state. He is a friend of humanity.

After the trial trip the guests assembled in the superb dining room of the Union Station, and such a dinner one rarely has the opportunity of enjoying. At the proper time Dr. I. N. Love, who had previously been invited to serve as toastmaster, rapped the company to order. Numerous congratulatory and entertaining speeches were made, notably by the Hon. Charles Nagel, president of the city council; Capt. John Scullin, Dr. Otto E. Forster, member of the board of health; Dr. James Moores Ball, editor of the *Tri-State Medical Journal*, and many others.

Dr. George Homan, health commissioner, the host of the evening, having been called upon, responded as follows:

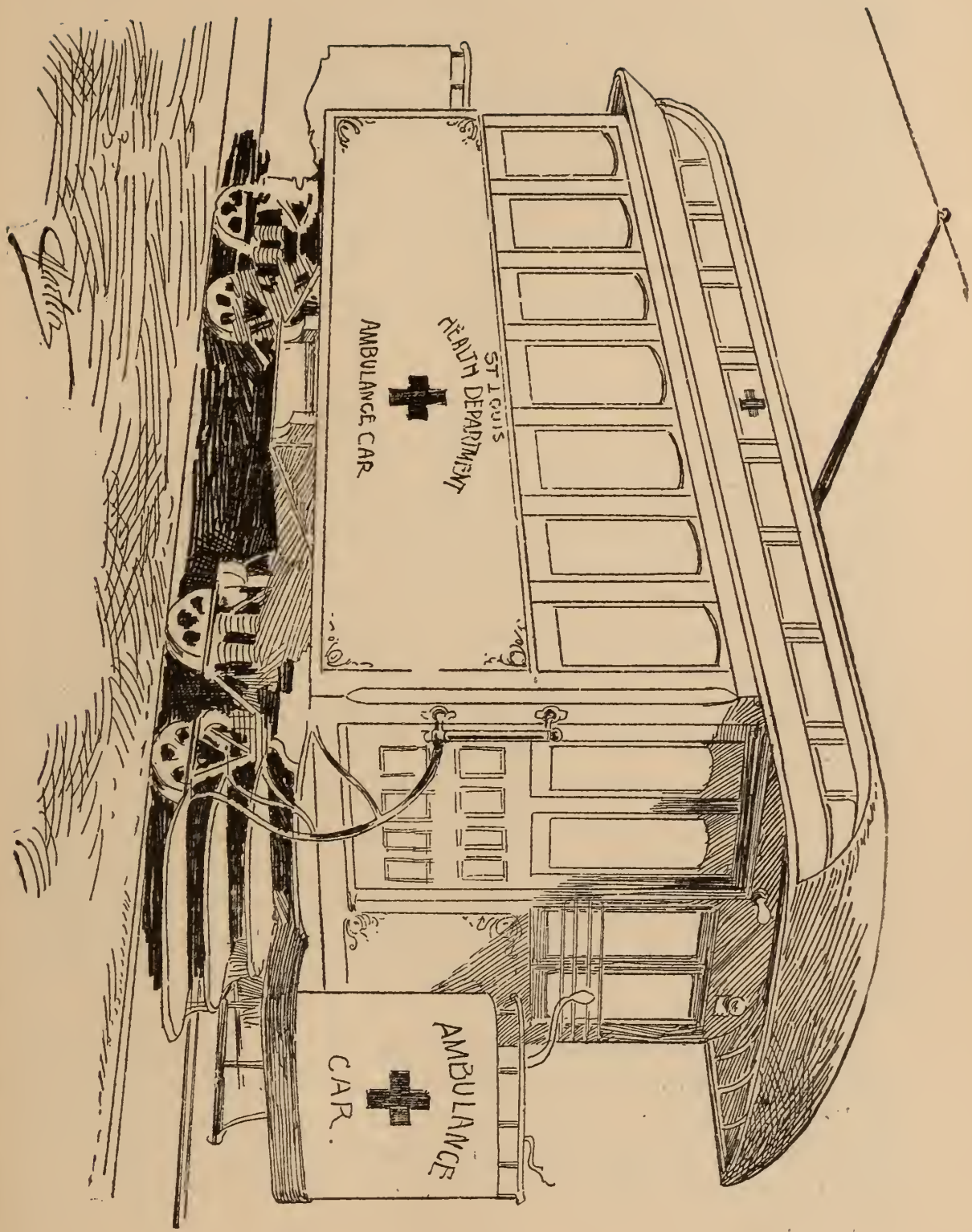
*Mr. Toastmaster and Gentlemen*—Every step forward, be it great or small, must be counted in the life of a city in truly reckoning from time to time the progress it is making toward better things. And better things are those which show in themselves a real gain over the past, whether in mind, heart or soul, in science, intellect or work, in enlightened skill or humane achievement.

The occasion which brings this company together tonight is one that may, not unfairly, be held to partake of this character, small though its particular subject may be and far distinct from the personal sphere and daily life of many of those now present here.

The step forward which we mark this evening is in the line of more considerate treatment and more humane handling of sick and wounded unfortunates; and, if the worth of the civilization of today shall be measured in this wise and by such a standard, who, knowing the truth, will dare deny that our shortcomings are many and opportunities for improvement correspondingly great? Nor does it avail to extenuate our delinquencies in this regard by pleading that others have done no better.

St. Louis, as the metropolis of the Mississippi Valley, should be as a city set on a hill in all intelligent effort, conspicuous for excellence in every domain, an exemplar and a shining light to all the world.

The origin in me of the idea whose embodiment you have seen tonight, was the use of street cars and railways for United States mail purposes, this application having been realized through the intelligence and zeal of our then postmaster, Mr. Harlow; and, being quite familiar with the methods and equipment of the local Health Department, the thought of a car ambulance arose in my mind, and the same thought




[*From the Medical Fortnightly*]

must have been suggested to other minds also that had been bent to the question, as the time was ripe for changes, and I take pleasure in saying that the first person who mentioned his ideas to me on this subject was Dr. Albert Merrell, who is with us tonight.

The matter having been fully considered and plans outlined, and after a cordial endorsement of the project by the Board of Health and the daily press, on June 22, 1894, Mr. Scullin gave the order to the St. Louis Car Company, to build a car for the special use of the Health Department in conveying to hospital the ill or injured members of this community, whose necessities compel them to become a public charge. The lines of road operated by Mr. Scullin's company touch, or very nearly reach, all the principal institutions provided for public relief, and the initiative was thus taken by him in what, to my best knowledge, was an entirely novel enterprise.

Nothing was spared by him in time, care or means to furnish the most perfect appliance in every respect, and if there is any fault to be found the blame lies with me, not him. The builders of the vehicle also took infinite pains to produce a perfect specimen of its kind, and many valuable suggestions as to construction and detail were made by Mr. Kling, of the company just mentioned. I believe that this change of method will prove of such value in the prevention of needless suffering by patients in transit, and in the opportunities presented for the saving of limb and life, that no more thought of a return to the old way will be entertained than the business world would think of abandoning steam and electricity for horseflesh to meet the demands of modern travel and traffic.

The whole aim of the Health Department is the prevention of physical ills and the saving of life ; and, as an instrumentality to this end, and for the greater glory of St. Louis, I believe the electric ambulance car will have a place in the conduct here of municipal affairs until time and onward progress shall reveal to inquiring minds means and methods as superior to it as it will be found to surpass those which it has replaced.

We present herewith an illustration showing an exterior view of the electric ambulance in transit, kindly loaned us by the *St. Louis Medical Fortnightly*. We hope that Buffalo will promptly adopt a similar ambulance service. The mayor, common council, street railway managers and health commissioner ought to be united in this humane project.

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It is announced in a special dispatch to the *New York Evening Post*, under date of February 12th, that the faculty of the Yale medical school has appointed a committee consisting of Professors

Smith, Carmalt and Ferris to prepare a plan for an extension of the three years' course of the school to four years. It is expected that the scheme will be perfected in season for announcement at the next commencement.

From advance sheets of the regents' annual report, we learn that of the 140 medical schools in the United States, there are now fourteen that absolutely require a four years' course of medical lectures; nearly 100 schools announce that they graduate on three terms of lectures and about twenty-five on two terms, the length of the term varying from five to nine months.

## Personal.

Dr. A. H. Wright, of Toronto, on Tuesday, January, 22, 1895, delivered the third lecture of the series on the history of medicine at the Toronto University. Dr. Wright's subject was Alexandrian Medicine and the conclusions he arrived at were that anatomy, both human and comparative, botany and chemistry were well studied; that every assistance was given to those engaged in original research; that disease was subject to natural laws and necessitated close clinical observation for its cure; that treatment should be made of prime importance; and that the physician should recognize a high conception of his status and duty.

Drs. John D. S. and William E. B. Davis, of Birmingham, Ala., have built a commodious infirmary, which they occupied early in February, 1895. The *Medical Age* says:

> These gentlemen are to be congratulated for their successful work in their chosen specialty. By persistent effort, coupled with their splendid abilities, they have succeeded in establishing for themselves, in the city of Birmingham, a lucrative practice, as well as a reputation in the medical profession.

We cheerfully join in the sentiments expressed so gracefully by the *Age*.

Dr. Albert Vander Veer, of Albany, was elected a regent of the University of the State of New York by the legislature, February 13, 1895. The medical profession has in Dr. Vander Veer a suitable representative on the board of regents of the university, and

the state at large, as well as the profession of medicine, is to be congratulated upon his election.

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Dr. Daniel Lewis, of New York City, has been appointed a member of the state board of health. At a meeting of the New York Academy of Medicine held February 7, 1895, Dr. Lewis was also elected one of the vice-presidents to fill the vacancy caused by the election of Dr. Joseph D. Bryant as president of the academy.

These are deserved recognitions of the professional and social standing of one of New York's able physicians.

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Dr. A. L. Benedict, of Buffalo, was awarded the Merritt H. Cash prize by the medical society of the State of New York at its meeting held in Albany February 5, 6, 7, 1895. There were three essays in competition. The subject of the successful one was Auscultatory Percussion and Allied Methods of Physical Diagnosis. The award was $100 in money.

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Dr. H. W. Rogers, of Cleveland, has been elected professor of principles and practice of medicine and clinical medicine in the medical department of the University of Wooster. Dr. Rogers is an alumnus of Buffalo University medical college and was a pupil of Professor Miner during his student years.

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Dr. Roswell Park, professor of surgery in the Buffalo University medical college, was elected president of the medical society of the State of New York at its recent annual meeting. Dr. Park is also a member of the New York State medical association.

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Dr. E. E. Blaauw, formerly first assistant at the ophthalmological university clinics, Amsterdam, offers his services as a specialist for eye, ear and throat diseases. He is located at 285 Franklin street, Buffalo. Hours 9–1 and 3–4.

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Dr. R. T. Rolph, formerly of Fredonia, N. Y., has removed to Dunkirk, where he is permanently located for the active practice of his profession.

## Obituary.

Dr. James Nichols, of Bradford, Pa., died in that city Saturday morning, February 16, 1895, in the seventieth year of his age. Dr. Nichols was one of the most prominent physicians of his region. He was accomplished in his profession, cultivated in his manners and possessed of a kindly disposition, all of which went to make him a popular physician, a distinguished citizen and a genial companion. He was an alumnus of Buffalo University medical college, and after graduation settled in Limestone, N. Y. In March, 1852, he married Miss Mary J. Wade, of Farmersville, who with two sons and a daughter survive him. One son, Dr. H. J. Nichols, was associated with his father in practice at Bradford. The funeral was held under the auspices of Trinity Commandery Knights Templar, and the interment was at Oak Hill cemetery.

## Society Meetings.

The American Academy of Medicine will hold its twentieth annual meeting in one of the buildings of the Johns Hopkins University on Saturday, May 4th, and on Monday, May 6, 1895. The headquarters of the Fellows of the academy and the meetings of the council will be at the Stafford.

The meeting will open at 10 o'clock on Saturday morning with an executive session of the Fellows of the academy exclusively ; the reading of the papers will begin at about 11. The morning session will close at 1 o'clock and the session of Saturday afternoon will extend from 3 to 6. The "Reunion session" will be held on Saturday evening. By a standing rule the price of the tickets for the supper is fixed at $2. Attendance at the reunion session is not confined to the Fellows exclusively, hence any member may bring friends with him by arranging for their tickets with the committee. For the past two years ladies have been present at this session and have added to the enjoyment. The session of Monday will begin with a short executive meeting, after which the reading of papers will be resumed ; after a recess at 1, the afternoon session will begin at 3 and continue until adjournment.

Members of the profession and others who may be interested in the topics treated by the papers, are cordially invited to attend the open sessions of the academy.

An interesting program has been prepared, among which we notice the following titles by physicians at Buffalo: The proper teaching of Physiology in the Public Schools as a means of preventing Intemperance and Venereal Disease, by De Lancey Rochester, M. D.; What shall we do with our Alcoholic Inebriates? by J. W. Grosvenor, M. D.

## Board of Health Note.

Professor B. Mead Bolton, associate professor in bacteriology at Johns Hopkins University, was appointed by the Buffalo Civil Service Commission to conduct the examination of the applicants for bacteriologist and assistant bacteriologist to the health department of Buffalo. This examination was held on Friday and Saturday, February 15 and 16, 1895. Seven applicants contested for the honor. Of these, two, Drs. William G. Bissell and Thomas B. Carpenter, who have been performing the duties of the offices pending the result of this examination, obtained the highest markings and will undoubtedly be appointed permanently to the places they have been holding.

## Medical College Note.

Messrs. Frederick Stearns & Co., of Detroit, have established a $600 fellowship in the University of Michigan, to be known as the Stearns Fellowship of Pharmaceutical Chemistry and Pharmacology. The object is to afford opportunity to graduates of pharmacy for original work. During the coming year the work of the candidate will be under the immediate supervision of Dr. A. B. Prescott, dean of the department of pharmacy.

## Journalistic Note.

The *Odontographic Journal*, a dental quarterly edited by J. Edward Line, of Rochester, and published by the Rochester Dental Manufacturing Company, has appeared in a handsome new cover. It is well edited and printed and presents unmistakable evidences of prosperity.

# Book Reviews.

MEDICAL JURISPRUDENCE, Forensic Medicine and Toxicology. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry, Physics and Hygiene, in the University of the City of New York, etc., etc., and Tracy C. Becker, A. B., LL. B., Counselor-at-Law and Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo. In four volumes. Volume II. Large 8vo, 751 pages, illustrated with wood-cuts and three plates, two of them in colors. Price, in muslin, $5.00 ; in brown sheep and in law style, $6.00 per volume. Sold by subscription only. New York : William Wood & Co. 1894.

The second volume of this important work justifies the opinion previously expressed in regard to it in these columns. The second division, forensic medicine, is continued and the sub-head, biothanatological, taken up. The first section, consisting of eighty-two pages, is devoted to the examination of blood and other stains, and is written by Edward S. Wood, professor of chemistry in Harvard University medical school. This subject, next to that of poisons, constitutes one of the most important presented to the chemical expert in medico-legal cases. If the case should prove to be one of homicide, the greatest interest especially surrounds blood stains. The several methods employed for the identification of blood stains are here considered and are, first, chemical ; second, optical ; and third, microscopical. All these methods are here treated with much elaboration and are illustrated by numerous photographs, showing the difference between human blood corpuscles and those of various animals.

Closely allied to the foregoing is the examination of hair, to which a brief section is devoted and which is treated of by the same author.

The third section of the book, consisting of 125 pages, considers abortion and infanticide. These subjects are elaborately dealt with by J. Chalmers Cameron, consulting physician to the Montreal general hospital. There is probably more concealed crime of which offenders go unpunished in these two departments of criminal jurisprudence than in any others. The difficulties of differentiation between criminal and natural abortion, it must be confessed, are many, and the incentives to concealment are strong.

The physician is often called upon to decide, as an expert, by an examination of the body, whether death is from infanticide. He is confronted by four problems, an intelligent solution of which will clear up many a doubtful case, and often prevent an unjust accusation. These are : first, was the child born alive ? Second, if so, how long did it live after birth ? Third, was death due to natural causes or to violence ? Fourth, was the violence accidental or criminal ? A careful reading of this section will prove of great service to the medical witness.

A short chapter is devoted to the determination of survivorship, which is written jointly by Tracy C. Becker, one of the editors, and John Parmenter, professor of anatomy and adjunct professor of clinical surgery in Buffalo University medical college. Mr. Becker treats of the legal side of the subject, while Dr. Parmenter discourses upon its medical aspect. This brief section is full of interesting thought.

We have now reached the second grand division of the work, forensic medicine. The first chapter considers a biological question—namely, when medical examination or other inspection of living human body is required or permitted by courts of law, that is also written by Mr. Becker, who discusses the subject from the criminal and civil points of view.

The next section of the work considers pregnancy, labor and the puerperal state, to which 116 pages are devoted, and it is written by J. Clifton Edgar, associate professor of obstetrics in the University of the City of New York. The interesting subjects relating to feigned pregnancy, unconscious impregnation, and delivery are here discussed with intelligence and clearness. Can copulation and impregnation occur in a woman, without her knowledge, during hypnotic sleep? is a question for the believers in hypnotism to discuss. We are willing to admit that a woman may be unconscious of her pregnant state, but we are not ready to admit that copulation can take place without her knowledge.

The next subject discussed is that of sexual incapacity in its medico-legal relations, and is written by Irving C. Rosse, professor of nervous diseases in Georgetown University. The various questions relating to impotence and sterility are herein set forth with vigorous and forceful interest.

From time immemorial the medico-legal consideration of rape has possessed great interest to the medical jurist, but never, in our view, has it been discussed more intelligently than in this volume by J. Clifton Edgar, whose title we have before given, and James C. Johnson, assistant in the department of skin and venereal diseases at the New York Hospital. This chapter is excellently illustrated by chromo-lithographs and engravings, and is full of illustrative cases demonstrating the several problems pertaining to the subject.

The next chapter is devoted to the consideration of unnatural crimes, and is also written by Irving C. Rosse. Here are detailed the most disgusting practices relating to sexual inversion, bestiality and other like abhorrent crimes.

Let us quickly turn from the foregoing to the next section, which deals with railway injuries, their clinical and medico-legal features, which is written by W. B. Outten, dean and professor of the principles and practice of surgery in the Beaumont Hospital Medical College, St. Louis. In the 176 pages allotted to this important medico-legal question, Dr. Outten has given us more definite information than before has ever been printed in a single

monograph on this subject. These cases are oftener contested in the courts than any others, and every physician needs to inform himself thereon with the greatest care and intelligent thought.

This admirable volume closes with a brief chapter on simulated diseases, written by W. Thornton Parker, formerly medical examiner of Rhode Island. The book, like the preceding volume, is full of references and contains a table of cases cited by legal authors in volumes I. and II. It is well indexed and fully sustains the claims made for the work in its prospectus, as well as the fulsome praise that it has received at the hands of reviewers.

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A Clinical Manual of Diseases of the Eye, including a Sketch of its Anatomy. By D. B. St. John Roosa, M. D., LL. D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School and Hospital ; formerly Professor of Diseases of the Eye in the University of the City of New York, and in the University of Vermont ; Consulting Surgeon to the Brooklyn Eye and Ear Hospital ; President of the New York Academy of Medicine ; Honorary Member of the Medico-Chirurgical Society of Edinburgh ; Honorary Fellow of the Academy of Medicine of Havana, Cuba, etc., etc. Illustrated by 178 engravings and two chromo-lithographic plates. Octavo, pp. xx.—622. New York : Wm. Wood & Co. 1894. Price, cloth, $5.00 ; leather, $6.00.

This manual is the production of a facile writer, an experienced practitioner and an independent mind. It is the outcome of a motive which, in the author's own words, is as follows :

> This book has not been written because the author supposed, for an instant, that there were not already in the English tongue many excellent treatises on diseases of the eye. It is presented to the profession because I have not deemed the debt I owe to it could be even approximately satisfied, nor my own reputation as a teacher, whatever that may be, justly settled unless I presented in a permanent and accessible form some of the results, with their personal coloring of my long experience both in hospital and private practice, in ophthalmic disease and therapeutics.

In other words, the author had a message to deliver to the medical profession and he desired to secure such delivery beyond all peradventure of loss. The " manual " was selected as the best means of doing this and at the same time as the best channel by which to reach the largest number.

We have here a very complete description of diseases of the eye and their treatment, written in the author's well-known easy and interesting style, into which is incorporated such personal views and practices as he desires shall be preserved and perpetuated. These latter are based upon a broad and well-digested experience and must serve at least to partially neutralize what are considered by the more conservative ophthalmologists as extreme and unsustained claims of certain practitioners, particularly in regard to the frequency, effects and treatment of inequilibrium of the ocular muscles.

The work is divided into four parts, as follows :

Part I.—Sketch of the anatomy and physiology of the various parts of the eye and its appendages.

Part II.—The relative frequency of different diseases of the eye, methods of examination, therapeutics and surgery of the eye.

Part III.—Diseases of the eyelids, the lachrymal apparatus, the conjunctiva, eyeball and orbit.

Part IV.—Conditions of the eye requiring glasses—errors of refraction and accommodation, strabismus, affections of the ocular muscles.

In part first the author gives a good description of the anatomy and physiology of the eye and its various parts.

Part second explains the methods of examination, including the use of the ophthalmoscope and the author's favorite instrument, the ophthalmometer, the principles of treatment and remedies applicable, and concludes with a chapter on surgical operations on the eye. A chapter is also devoted to the relative frequency of the various affections of the eye. In this part the shadow-test is referred to, but is passed over with a brief historical sketch and a very short description of its use. Evidently the author has but little use for it in his own practice. If the description of operations of the eye are to be separated from that of the conditions to which they apply and belong, it is better, in our opinion, to place it before rather than after the latter, as Dr. Roosa has done.

Part third takes up the diseases of the eye in the following order : Eyelids, lachrymal apparatus, conjunctiva, cornea, sclera, iris, ciliary body, choroid, retina, vitreous humor, glaucoma, crystalline lens and orbit. This part gives an excellent survey of diseases of the eye and represents, in the main, the latest and the best in regard to ocular therapeutics.

Part fourth considers errors of refraction and affections of the ocular muscles. It is here that the author asserts his individuality and expresses his convictions in no unmistakable terms. He ignores, almost entirely, muscular "insufficiencies," their nomenclature (Stevens) and effects and simply regards them as symptoms or effects whose cause lies for the most part in errors of refraction. He says :

> Of late years, too much stress has been laid upon the conditions of the eyes in producing constitutional symptoms. Certain constitutional conditions that involve accommodative fatigue, or fatigue of the ciliary muscles, may produce symptoms simulating true asthenopia, but these should be carefully distinguished from those resulting from errors of refraction. Epilepsy, chorea, and so forth, have been thought to result from these conditions. With that doctrine, after patient and careful investigation, I have no sympathy. I shall teach that there are no reflex symptoms from the eyes, unless the eyes themselves give warning that they are not doing their work properly. Latent errors of refraction have very little to do, as a rule, in my opinion, even in the causation of asthenopia, and nothing whatever in the production of constitutional disease.

Although I formerly accepted the ordinary classification of asthenopia dependent upon insufficiency of the external ocular muscles, I have come finally to reject it altogether. Of course, I do not deny the existence of insufficiencies of the interni, chiefly in myopia, and of the externi, principally in hypermetropia, nor do I deny that there are many eyes whose external muscles are not capable of doing the average degree of work, but I hold that all these conditions depend on static, fixed conditions of the eyeball ; that they are direct consequences and should not be denied a special nomenclature, but should be classed under the heading of asthenopia occurring in myopia, hypermetropia, hypermetropic astigmatism, and so forth, from faulty conformation of the eye. I formerly measured the relative power of the muscles, but, as has been shown in another part of this book, this relative power varies in different individuals, who have no trouble with their eyes, and I therefore no longer measure it, any more than does the surgeon the relative contractile power of the fingers, legs or arms. Physiologically, it may be interesting, but it can do nothing toward a proper treatment. (Page 450.)

In another place he says:

Muscular asthenopia has played a great part in the diagnosis of refractive cases in our country. One of the believers in great and widespread influence of the eye upon neuroses, abandoned the idea that hypermetropia was the cause of epilepsy and chorea, "more than all other causes combined," to urge that uncorrected insufficiencies of the external muscles was the real cause. This author (G. T. Stevens: Functional Nervous Diseases) has had many followers. Most of them have not gone so far as he, but there has been, and continues to be, an extensive practice of tenotomy and use of prisms to correct defects, which, in my opinion, after a very careful examination continued for years, depend upon errors of refraction, if disturbing, and which may exist, and do exist, in persons who have no asthenopia, and no neuroses, such as chorea and epilepsy. I formerly practised tenotomy, to a limited degree, for latent insufficiencies, and prescribed prisms very frequently. The thorough use of atropia soon, in great part, convinced me of the complete dependence of muscular asthenopia upon errors of refraction, chiefly upon astigmatism, and I gradually ceased almost entirely to prescribe prisms, having found them sometimes beneficial but almost always makeshifts, and poor substitutes for cylindric glasses. When I became familiar with the use of the ophthalmometer, in 1888, I once for all abandoned the idea of relieving muscular asthenopia, except by correction of an error of refraction, and I advised, as I do now, that the term be given up as having no rightful place, as generally used, in ophthalmology. If the student will carefully correct the errors of refraction, he will have no need for tenotomies, except for strabismus, nor for prisms, except for paresis or paralysis of the external muscles. (Page 519.)

The author expresses the utmost confidence in the use of the ophthalmometer in correcting astigmatism, and gives a detailed description of his method of using it. Few ophthalmologists will share with Dr. Roosa the same confidence, but all will admit the great utility of this instrument in suggesting the approximate amount and direction of corneal astigmatism.

In connection with the subject of ocular hygiene, Dr. Roosa utters a most forcible warning and appeal, and it is so pertinent and so just that we quote him somewhat at length:

The demands upon eyes in our days have greatly increased over those of our ancestors. There are many more books, magazines and newspapers to read. Mechanical employment upon fine objects have become more common in this country as our population has grown denser. Besides all this the printers and publishers of the world have everywhere availed themselves of the fact that glasses assist very much in vision and have taken liberties with the public in the way of printing in fine types and in the use of old plates, which give indistinct impressions on the retina and make great demand upon the eyes. This latter state of things is one that every physician should combat. Books should always be well printed, type should always be clear, no matter if by dint of spectacles much can be read that our ancestors, with their poor knowledge of the resources in glass lenses, would never have attempted. Then again, the demands upon school children's eyes have been excessively increased, in the United States at least, in the last fifty years. Children in public schools who will never be able to spend but a few years in study are compelled to take up an inordinate number of varied pursuits and to spend altogether too many hours over books. The practice of writing exercises has been largely multiplied in some of the public schools in New York City and in the cities of this state. These so-called advances in the methods of teaching involve excessive use of the eyes under, sometimes, very unfavorable conditions, that is to say, over desks of inappropriate height for the scholars, in rooms poorly lighted, with air that is sometimes foul for hours. Children are given too many studies to work out at home. It is idle to think that any science can combat such conditions as these. The conditions themselves must be changed or we shall find a race of myopes and asthenopes growing up where formerly we had a strong-eyed people. This is an evil that is beginning to be appreciated in some of the private schools. But some of the teachers in the land seem to be natural enemies, not of the doctor as one of them once suggested, but of the laws of hygiene, which the doctor endeavors to enforce.

In what is said in these chapters on the matter of relieving weak sight with glasses, let it be fully understood that I never, for an instant, condone bad habits which often force glasses upon young people prematurely and which cause evils that they can only imperfectly remedy. There is many a hyperopic or astigmatic person who would never use glasses until presbyopia came on if the eyes were used under favorable conditions. If one were to put down on paper the number of hours that young children attending many schools are compelled to use their eyes on close objects, the table would appear like an exaggeration. I plead earnestly, therefore, that physicians will constantly bear in mind the fact that eyes, especially the eyes of young people, like brains and muscles of the human body may be overtaxed. (Page 439.)

In conclusion, we desire to commend this work to the careful consideration of physicians, first, because its subject-matter is comprehensively and attractively presented; second, because it represents the matured views of an experienced man which are at variance with those of some other ophthalmologists, and may serve as

a wholesome check to the propagation of certain extreme tenets and practices that have already gained more or less currency and endorsement in the profession at large. A. A. H.

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BLOOD SERUM THERAPY AND ANTITOXINS. By GEORGE E. KRIEGER, M. D., Surgeon to the Chicago Hospital, etc. Chicago: E. H. Colegrove & Co. 1895.

The subject of which this book treats is attracting considerable attention at the present time. This is specially the case with reference to the antitoxin treatment of diphtheria. We hear a good deal about Behring's law, which is here given, and furnishes the basis for the application of blood serum to the treatment of disease. It is here asserted that Behring "established the fact that the blood and blood serum of an individual, which has been artificially rendered immune against a certain infectious disease, may be transferred to another individual with the effect to render the latter also immune, no matter how susceptible this animal is to the disease in question."

If this "law" is accepted, everything treated of in the book becomes easily reconcilable. It is a well-written little treatise, and should command the attention of bacteriologists and clinicians.

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A PRACTICAL MANUAL OF MENTAL MEDICINE. By DR. E. REGIS, Professor of Mental Diseases, Faculty of Medicine, Bordeaux, formerly Chief of Clinique of Mental Diseases, Faculty of Medicine, Paris. With a preface by M. Benjamin Ball, Clinical Professor of Mental Diseases, Faculty of Medicine, Paris. Second edition, thoroughly revised and largely rewritten. Authorized translation by H. M. Bannister, A. M., M. D., late Senior Assistant Physician Illinois Eastern Hospital for the Insane. With introduction by the author. Pp. xvi.—692. Utica, N. Y.: Press of American Journal of Insanity. 1894.

This is the first modern French work on mental diseases which has been translated into English.

After reading the book we are convinced that the American medical profession is truly indebted to Dr. Bannister for his enterprise. The special features of the book are, first, an interesting historical review of insanity, considered in four epochs—namely, first, primitive epoch; second, (*a*) Hippocratic period, (*b*) Alexandrian period, (*c*) Græco-Roman period from Asclepiades to Galen; third epoch, (*a*) the middle ages, (*b*) the renaissance; fourth epoch begins with Pinel. Following the historical sketch is a section on general pathology. The description of various types of insanity—the terminations and complications are all fully and carefully treated.

The chapter on functional elements takes up in detail, first, the disorders of general activity, as excitement and depression; second, disorders of the psychic sphere, as (*a*) of the intellect, (*b*) the emo-

tions, (*c*) of the motor impulses ; third, disorders of the nervous functions—sleep, sensibility, motility.

Disorders of the vegetative functions, circulation, respiration, nutrition and assimilation, the secretions, the temperature, and the trophic and vaso-motor functions.

This chapter is largely physiological in character, and contains much that is not found in other books on mental diseases.

There are also special chapters on heredity, monstrosities, conjugal relations of the insane, which add much to the literature of these subjects.

In the rear of the volume is a good therapeutic formulary. Altogether, we are much pleased with the work and can find little therein to condemn, but, on the contrary, a great deal to praise.

J. W. P.

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## BOOKS RECEIVED.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By Leading Authors of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume I. Diseases of the Uropoietic System. New York : William Wood & Co. 1895.

A Manual of Diseases of the Ear, for the use of Students and Practitioners of Medicine. By Albert H. Buck, M. D., Clinical Professor of the Diseases of the Ear, College of Physicians and Surgeons ; Columbia College, New York ; Consulting Aural Surgeon, New York Eye and Ear Infirmary and the Presbyterian Hospital. Second revised edition, one volume, post octavo, 467 pages, illustrated, with blank memoranda pages at the back, extra muslin, price, $2.50 New York : William Wood & Co. 1895.

Clinical Gynecology, Medical and Surgical, for Students and Practitioners. By eminent American teachers. Edited by John M. Keating, M. D., LL. D. and by Henry C. Coe, M. D., M. R. C. S., Professor of Gynecology, New York Polyclinic. Illustrated. Octavo, pp. xviii.—994. Philadelphia : J. B. Lippincott Co. 1895.

Materia Medica and Therapeutics for Physicians and Students. By John B. Biddle, M. D., late Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia. Thirteenth edition, revised, re-arranged and enlarged, with special reference to therapeutics, toxicology, the physiological action of medicines and containing all the preparations and remedies described in the United States Pharmacopeia of 1890, to which the work has been made to conform. By Clement Biddle, M. D., Medical Corps, United States Navy. With numerous illustrations. Octavo, pp. 714. Price, $4.00. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1895.

Relations of Diseases of the Eye to General Diseases. By Max Knies, M. D., Professor Extraordinary at the University of Freidburg. Forming a supplementary volume to every manual and text-book of practical medicine and ophthalmology. Edited by Henry D. Noyes, A. M., M. D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College ; Executive Surgeon to the New York Eye and Ear Infirmary, etc. Octavo, pp. x.—467. New York : William Wood & Co. 1895.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Genito-urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by Judson Daland, M. D., (Univ. of Penna.,) Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania; Assistant Physician to the University Hospital; Physician to the Philadelphia Hospital and Fellow College of Physicians, Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume IV Fourth series. 1895. Royal 8vo, pp. x.—365. Philadelphia: J. B. Lippincott Co. 1895.

History of Education in Maryland. By Bernard C. Steiner, Ph. D. (J. H. U.), Librarian of the Enoch Pratt Free Library, of Baltimore City, Associate in History Johns Hopkins University. Washington: Government Printing Office. 1894.

Antisepsis and Antiseptics. By Charles Milton Buchanan, M. D., Professor of Chemistry, Toxicology and Metallurgy, National University, Washington, D. C., with an introduction by Professor Augustus C. Bernays. Duodecimo, pp. 368. The Terhune Company: Newark, N. J. 1895.

Dose-Book and Manual of Prescription-Writing, with a list of the official drugs and preparations and also many of the newer remedies now frequently used, with their doses. By E. Q. Thornton, M. D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Saunders' New Aid Series. Small 8vo, pp. 334. Philadelphia: W. B. Saunders. 1895. Price, cloth, $1.25 net.

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## Literary Notes.

Scientific Bibliography.—Mm. J. B. Bailliere & Son have published a new General Catalogue of Scientific Books, (medicine, natural history, agriculture, physics, chemistry, arts and manufactures,) forming a volume of 112 pages, octavo, two columned.

This bibliography contains the detailed announcement of more than 5,000 volumes, preceded by a table of contents arranged in alphabetical order and will be sent gratis to each of the readers of the Journal who will send their request to Mm. J. B. Bailliere & Son, 19 rue Hautefeuille, à Paris.

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Messrs. Parke, Davis & Co., of Detroit, were favored with an unsolicited visit by a representative of the *Detroit Journal* to their

new bacteriological laboratory. A full account of this call is published in the *Journal* February 9, 1895, giving in considerable detail the methods of the manufacture of antitoxin pursued in that laboratory. This firm has recently published and sent out to the profession a beautiful brochure on the pharmacology of kola. It contains a few well-executed colored plates, showing the growth of the kola nut from the blossom to maturity. This pamphlet will be furnished to physicians on application.

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The *Monatsschrift für Geburtshülfe und Gynäkologie* is the name of a new medical magazine published in Berlin and edited by Professor Dr. A. Martin in Berlin, and Professor Dr. M. Sänger in Leipzig. Volume I., Number 1, January, 1895, is a handsomely printed 96 pp. magazine, which has been sent to us through the courtesy of B. Westermann & Co., 312 Broadway, N. Y. The editors are both Honorary Fellows of the American Association of Obstetricians and Gynecologists.

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The Antikamnia Chemical Co., of St. Louis, has issued a handsomely printed and bound monograph entitled Surgery 200 Years Ago. It is illustrated from original copper plates, showing crude methods of amputation, blood letting, reduction of dislocations, performance of lithotomy, trephining, transfusion and other surgical measures. This interesting book will be furnished only by the Antikamnia Chemical Co., and will be supplied to physicians upon application.

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The proprietors of Tongaline and Ponca Compound have just issued a neat and convenient Physician's Pocket Diary and Daily Memorandum Book, which contains much useful and valuable information for the general practitioner. It was the intention to have one in the hands of every physician in the United States by January 1st, but if through an error in addressing or negligence on the part of the post-office officials, any physician should not have received a copy, it will be mailed on application to the Mellier Drug Company, 2112 Lucas Place, St. Louis, Mo.

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The McArthur Hypophosphite Company, of Boston, has issued an artistic calendar for the current year that combines excellence of taste with practical usefulness.

Buffalo Medical and Surgical Journal

Vol. XXXIV. APRIL, 1895. No. 9.

# Original Communications.

## HOT SPRINGS, SOUTH DAKOTA; A HEALTH RESORT.

By J. W. GROSVENOR, M. D., Buffalo, N. Y.

Climates and natural waters have become important factors in the treatment of disease. The physician of today is expected to be well-posted on the various climates and health resorts of his own country and to have a general knowledge of them as they exist in foreign countries. In the not distant future the climatological specialist will have his office in every large city of the land, where he will be consulted by his clients and, for a consideration, will point out the best localities for the climatic cure of the various diseases with which he may come in contact. In this article it is my purpose to present to the medical profession some advantages of a young health resort which of late has found great favor with physicians of the West and Northwest.

Hot Springs, S. D., is situated in the southwestern part of the state, not far from the eastern border of Wyoming and at the beginning of the approaches to the Black Hills.

Its main site is the bottom of a gulch or cañon, thirteen miles in length and varying from a few hundred to many hundred feet in breadth. In some places the sides of the valley are quite precipitous; in others they ascend gradually into lofty hills. Opposite Hot Springs, on the top of the embankments, are broad plateaus, which furnish eligible sites for residences and public buildings.

Along this cañon for about six miles springs of warm water bubble up out of the earth in sufficient quantity to constitute a small stream of pure limpid water, which flows at a rather rapid rate through the center of the valley and is called Fall River.

Parallel to the river run a railroad and a carriage road and on either side of it are hotels, business blocks and public buildings.

*History.*—Less than a score of years ago the whole region, of which Hot Springs is the central point, was occupied by Indians. They had recognized—perhaps from time immemorial—the healing virtues of these spring-waters and had brought their sick there for bathing. Marvelous stories of the transforming powers of the waters have been handed down from one generation to another. They are more or less legendary in character. The cures that were wrought were observed by white men, and about fifteen years ago an enterprising physician, Dr. R. D. Jennings, purchased one of the springs, the Minnekahta, and its surrounding territory from the Indians and immediately began the use of the waters for his patients. The little hamlet of that day has grown into a city of 2,500 inhabitants.

*Analysis of the Waters.*—Although analysis of the many springs which are gushing up here and there in and near the valley shows that they differ somewhat in their ingredients, they are all essentially the same, the variations observed being caused by a slight difference in the soils through which they pass.

A characteristic of the waters of all the springs of this region is their temperature, which is nearly as high as that of the body, being from 94° to 96° Fahrenheit.

*Minnekahta Spring.*—This pleasantly-sounding name was given to it by the Indians and means hot water. The water of this spring has a higher temperature than that of any of the others. It is the spring used by the Indians and by which their aged were rejuvenated and their cripples were made "to leap as a hart." In the bath-house built over it is the ancient Indian bathing tub of immense proportions hewn out of the solid rock. Chemical analysis of this spring has shown its composition to be as follows:

| Constituents, per gallon. | Grains. |
|---|---|
| Total residue | 62.52 |
| Sodium sulphate | 6.11 |
| Potassium sulphate | 19.51 |
| Calcium sulphate | 16.33 |
| Sesqui-oxide of Iron | a trace |
| Silica | 2.46 |
| Magnesium sulphate | 4.32 |
| Sodium chloride | 13.79 |

Other important springs are the Mammoth, which furnishes the plunge bath-house and supplies the city with water; the Catholicon,

which is connected with a hotel and bathing establishment of the same name; the Hygeia, which has the reputation of being specially adapted to the cure of kidney and urinary diseases.

The water furnished to the Stewart bath-house is supplied through wells sunk to the hot water vein. From the spring waters which rise to the surface it differs in composition and in having a somewhat higher temperature. Its composition is as follows:

| Constituents, per gallon. | Grains. |
|---|---|
| Total residue | 100.00 |
| Sulphate of sodium | 12.50 |
| Sulphate of potassium | 13.10 |
| Sulphate of calcium | 8.05 |
| Nitrate of magnesium | 1.90 |
| Iron sesqui-oxide | 4.00 |
| Silica | 4.01 |
| Sulphate of magnesium | 14.09 |
| Chloride of sodium | 14.00 |
| Potassium chlorate | 13.00 |
| Bromide and iodide of potassium | 15.35 |

*Rheumatism.*—This is the disease which preëminently has the reputation of being curable by the waters of these springs. The following is one of scores of cases which might be adduced to prove the truth of this assertion:

A man 45 years of age had had rheumatism for fourteen years; had been treated by many physicians and also had used the waters at Colfax Springs. For the last two years had been almost totally disabled. The disease affected all the large joints of the body, which were stiffened and greatly swollen. On his arrival at Hot Springs he was apparently a physical wreck. His weight was 106 pounds. In walking a few rods from the railroad station to the hotel he used two crutches, but was unable to move them without assistance. He drank the water freely and took daily baths. At the end of six weeks he was able to superintend a news stand. At the end of eight weeks he had gained twenty pounds; used only a cane in walking; had almost complete use of his arms; joints were still somewhat enlarged, but gradually growing smaller. From a positively helpless cripple he had been transformed into a competent man of business.

*Other Diseases.*—It is my earnest belief that these waters have a decidedly salutary effect upon diseases of the bladder and kidneys. Subjects of various kinds of skin diseases have here found their liberation from maladies disgusting and obstinate. Records of resident physicians show that derangements of the digestive

system, both functional and organic, have received marked benefit from a proper use of these waters. By their use all conditions of the system in which there is an accumulation of noxious materials undergo a cleansing process. To secure its highest benefit the waters must be used both externally and internally. It is not at all disagreeable to the taste—indeed, is quite palatable. Taken in large quantities it is laxative, but not severely so.

From personal experience I can declare that a bath in these waters is a positive delight. They impart a smooth, oleaginous feeling to the skin, which I have never experienced to so large an extent by bathing in any other water. The dryness of the atmosphere encourages perspiration for a long time after leaving the bath and thus the body is enabled quickly to dispel the poisonous agents with which it may be freighted. Many invalids find benefit from drinking large quantities of the water. The resident physicians who understand its characteristics frequently direct their patients "to fill up on it three times a day."

*Climate.*—During the last eight years at Hot Springs a reliable private diary, in statistical form, has been kept concerning the climate. Dr. A. F. McKay, editor of *Climates and Resorts*, has recently compiled these statistics in such a way as to exhibit at a glance the prominent features of the climate. This exhibit shows the climate to be equable, mild, sunny and dry.

The situation of Hot Springs, in a narrow cañon, gives it freedom from both severe and sudden storms which at times affect the Dakotas. The surrounding hills protect it from the ravages of the cyclonic winds which sweep through some other regions of the state.

In general, it may be stated that the average daily temperature for the winter months will not freeze water. The snow-fall is light. Usually the snow falls during the night and melts the following day.

A sleigh ride in Hot Springs is a rare pastime. At one period, however, during the eight years the snow fell to the depth of ten inches and remained on the ground six days. The average number of days in which snow fell was: In October, one day; in November, two days; in December, three and one-half days; in January, three and one-half days; in February, eight and three-fourths days; in March, eight and three-fourths days. Although the nights may be cool or cold, on nearly every winter day a person is comfortable out-of-doors without an overcoat.

The heat in summer cannot be called excessive, the mercury seldom reaching the 100° limit and then only for a short period at mid-day.

Hot Springs is remarkably free from wind. Two and one-half is the average number of days per month on which there was sufficient wind to call for a note of its existence. There are no damp, chilling blasts and destructive blizzards.

So many are the sunny days, that truthfully it may be called a land of sunshine. The average number of perfectly clear days per month for eight years was twenty-one and one-half; of days partially clear, four and one-eighth; of cloudy days, four and seven-eighths. In 1893, the total number of cloudy days was thirty-three. A day was regarded as cloudy when during more than half of it the sun could not be seen. Surely such an exhibition of sunlight is entitled to high commendation.

The dryness of the atmosphere is shown by the average yearly amount of rainfall, which is seventeen inches.

But few health resorts in the country can show such a light rainfall. For the most part the rain falls in brief showers. In eight years there have been only a half dozen genuine rainy days. This record substantiates the claim that this region has a *dry* climate.

The altitude of Hot Springs, 3,400 feet above sea level, lifts it above the heavy atmosphere of lower levels and imparts to it a vigor which is grateful and life-giving to sufferers from certain kinds of pulmonary disease. It is not sufficiently elevated to produce an injurious effect upon the heart and general circulation. Invalids who cannot endure either very high or very low altitudes will find here verified the Latin adage, "*In medio tutissimus ibis.*"

Hot Springs is anti-malarial. Mountain fever is said to exist to some extent in surrounding regions rather remote, but seldom or never does a case of malaria occur in the city itself. It is even disputed, with a good deal of positiveness, that mountain fever is of malarial origin.

*Consumption and Asthma.*—From the above description of the climate it is not difficult to draw the conclusion that it has a favorable influence upon diseases of the lungs. This conclusion accords with experience and observation—especially in connection with consumption and asthma. The consumptive or asthmatic who can revel in the sunshine out-of-doors 306 days every year at a moder-

ately high altitude without being subjected to sudden climatic changes, in a dry atmosphere and a mild temperature, must certainly receive great benefit from his environment.

*Neurasthenia.*—By one physician whom I interviewed, Dr. C. W. Hargens, Hot Springs is regarded as a most excellent resort for neurasthenics. This is probably due, in part, to the invigorating atmosphere, to the fact that they can spend a large part of the time in the open air and to the quietness of the city and its surroundings. It is generally acknowledged that out-door exercise and freedom from much excitement are conducive to the welfare of the neurasthenic. Quiet pleasures and amusements are easily found by those who need them.

*The Soldiers' Home.*—Not long since, about seventy veterans of the late civil war, suffering from a variety of ailments, were sent from the Soldiers' Home at Leavenworth, Kan., to Hot Springs to undergo treatment. They were enfeebled by old age as well as by disease. After spending a few months there all but two were cured and those two greatly benefited.

The attention of the military committee of congress was directed to this successful test, and Hot Springs was soon selected by that committee as the best locality in the United States for a Veterans' National Sanitarium.

The sanitarium building, constructed of the beautiful pink sandstone of this region and capable of accommodating 140 soldiers, has been completed. At the present time it affords a shelter and comfortable home to 125 veterans. Perhaps no higher recommendation can be given to the healthfulness of Hot Springs and its adaptability to the cure of disease than the presence of this Soldiers' National Sanitarium.

*The Plunge Bath.*—This bath-house is the largest of its kind in the country; its dimensions are 75 x 250 feet. One hundred thousand gallons of pure, clear, warm water run into it and out of it every hour. In it all ages and sizes of human beings, from the infant to the septuagenarian, may be seen swimming, diving and frolicking in every way conceivable. Every boy and girl should learn the art of swimming. The exercise is healthful and a knowledge of this art is of essential service in all cases of accident by water. The physician should regard it an imperative duty to advise the families under his professional care upon this important matter. No better place for learning to swim can be found than the Plunge at Hot Springs.

The Evans bath-house has been constructed in connection with the large and commodious hotel of the same name. It is under the careful supervision of a competent physician and is complete in all the appointments of a first-class bathing establishment.

Other advantages of this invalids' resort besides those mentioned, are the excellent accommodations at hotels and boarding-houses at moderate prices, the social refinement and high moral tone of the inhabitants, the magnificent scenery of mountains, valleys and streams, places of historic interest in the near surroundings, an atmosphere impregnated with the agreeable exhalations from the pine and spruce forests of the Black Hills.

*The Journey.*—Hot Springs is quite accessible by two routes from Chicago, from which it is distant from thirty-six to thirty-eight hours. The B. & M. R. route, a part of the Burlington system running to Deadwood, has a branch line to Hot Springs from Minnekahta, a distance of ten miles. Leaving Chicago at 6.30 in the evening the traveler reaches the Springs the second morning.

The F., E. & M. V. route, a part of the Chicago & Northwestern system, has a branch to Hot Springs from Buffalo Gap.

It was my good fortune on a recent visit to the Springs to take the B. & M. R. route of the Burlington system. The sleeping cars are comfortable and the officials of the road are polite and helpful.

This article has been written to call the attention of the medical profession to this new sanitarium in the Northwest. Quite frequently the physician is consulted by an invalid who has *worn out* many of the old health resorts of the country and is seeking some new El Dorado of health. Again, a patient has sought in many climates and various waters relief for his chronic rheumatism, or chronic bronchitis, or asthma, or consumption, and has been disappointed. I suggest that in such cases, as well as in others, the physician advise a visit to Hot Springs, S. D., often called "The Carlsbad of America." A comprehensive editorial article upon it may be found in the August, 1894, issue of *American Climates and Resorts*, written by the very competent climatologist, Dr. A. F. McKay.

My general impression of Hot Springs is that it combines many superior advantages as an all-the-year-round resort for those afflicted with chronic diseases and for those who wish to seek rest from the cares of business and relief from the "maddening crowd" of our large cities.

118 Plymouth Avenue.

# THE LESSER OMENTUM.

(*Ligamentum Gastro-hepaticum, Mesogaster Anticum, Anterior Mesogaster, Mesenterium Hepatis.*)

By BYRON ROBINSON, Chicago.

The ligamentum gastro-hepaticum (lesser omentum) is a duplicature of peritoneum stretching from the lesser curvature of the stomach to the transverse fissure of the liver. It may be of interest and surprise to many to learn that the literature concerning the gastro-hepatic omentum is not only limited, but of little value. I have read Gray, Quain, Morris, Aeby and Hyrtl and many others, yet only a bare statement of origin and insertion can be found in those anatomies with the idea that it is a double membrane. Even the historical J. Mueller only writes this following short sentence (in German, in 1830,) in regard to the lesser omentum: "On the upper part of the smaller curvature the blades again meet and form a united fold reaching to the liver." This is rather a short note for a German anatomist. The ever memorable Huschke said in 1844. "The lesser omentum is the result of the separation of the liver from its embryonic connection with the stomach and is the anterior right and upper, while the gastro-splenic ligament is the greater omentum, and the posterior, left and lower." This comparison of spleen and liver as regards omenta is of little value, and I rather think misleading. The spleen and liver do not develop similarly.

Kolliker says the lesser omentum is a true liver mesentery. The master of anatomy, Henle, passes over the lesser omentum with very few words, but he gives an excellent drawing of the same in the second volume of his anatomy, page 899. From the above authors it may be said that the literature relating to the ligamentum gastro-hepaticum is quite barren. Toldt, formerly of Prague, now of Vienna, is the only one I am aware of who has studied the lesser omentum to any considerable extent. However, Toldt's excellent remarks are unfortunately very short, covering less than two pages. My studies of the lesser omentum were carried on with embryos of humans and animals, children, adult humans, and several species of adult animals. If one will study the lesser omentum on spare cadavers it will be very plain to observe that the ligamentum gastro-hepaticum is composed of three distinct parts. The lower ribs should be removed and sufficient amount of the right and left liver lobes to secure ample room to expose the whole anterior surface of the ligament as it stretches

between the lower gastric curvature and the transverse fissure of the liver. I shall divide the ligamentum hepato-gastricum, or lesser omentum, into three parts for convenience of description and also to call attention to its difference of construction. The first or upper portion I shall call the pars tendineus ; the second or middle portion may be named the pars flaccida (Toldt) ; the third or lower part will be called pars hepato-duodenale.

(1.) Pars tendineus (Robinson) is the first or upper portion. It is known by its white dense appearance. In adults, so far as my measurements are concerned, it averages two inches from top to bottom. The pars tendineus stretches from the esophagus to the transverse fissure of the liver. It loses itself in the coronary ligaments of the liver and also in the suspensory ligaments of the liver. The surface of the pars tendineus is covered anterior and posterior by a shining, serous peritoneal layer. I could separate this serous layer from both the anterior and posterior surface quite easily. Between the two thin serous layers lies the membrana mesenterii propria, or a very similar structure. The structure consists of dense, white connective tissue closely woven together. Its lower edge, reaching two inches below the diaphragm, along the right border of the esophagus is sharply defined and of a concave outline. The pars tendineus not only inserts itself into the esophagus, but many of its fibers are inserted into the cardiac part of the stomach. As it passes toward the liver it apparently passes to the transverse fissure of the liver, but its real insertion is in dense tissue surrounding the inferior hepatic vein-ligamentum venosum. It must not be forgotten that the liver is really held in position by the connection to the inferior vena cava. All other ligaments may be cut away, yet the ligamentum venosum will retain the liver in its position. Hence, this will explain why the pars tendineus has its real insertion in the ligamentum venosum. The pars tendineus is also a passage-way for blood-vessels, lymphatics and nerves to the liver. The gastric artery and the vagus nerves can easily find routes to reach the liver by way of the pars tendineus. It can be plainly observed on a spare adult cadaver that the upper portion of the lesser omentum, the pars tendineus, merges into the coronary and suspensory ligaments of the liver. The pars tendineus is recognized by its milk-white color, its tendinous and glistening appearance. It is a dense, solid connective tissue structure, situated between the right border of the esophagus and the transverse liver fissure and at the upper part of the lesser omentum. It

consists of three lamina or plates. The central one (mesenterii membrana propria) is the chief one for bulk and strength. Its origin is the right esophageal border and its insertion is in the ligamentum venosum on the connective tissue surrounding the inferior vena cava. The pars tendineus, about two inches perpendicularly, is covered or faced on both sides by a very thin, shining serous layer of epithelial cells. I could easily separate both serous layers from the middle one. The lower border is concave downward and shapely defined in outline. In my examinations of fetuses the pars tendineus is well formed by the fourth month, but more and more distinct through the remaining fetal months. One can often observe this structure much earlier in some fetuses. After the sixth month of fetal life, when all essential peritoneal structures are completed, the pars tendineus is fairly plain. But, in my experience, the pars tendineus is most distinct in spare children. In children, the upper portion of the lesser omentum is very white, dense, distinct in outline and very strong. After adult years (40) the structure does not show such a plain and definite outline and some portions may be absorbed, producing a fenestrated condition. Fat accumulates in this structure very sparingly. Toldt mentions that he has observed apertures, due to absorption, in the upper portion of the lesser omentum, but I have noted this structure from fetuses up to old age and have never yet observed atrophic apertures in this structure.

(2). The pars flaccida (Toldt), or middle portion of the lesser omentum, is the next division for consideration. This part could be called very appropriately the ligamentum gastro-hepaticum. However, the structure itself has not the slightest resemblance to a ligament. It is one of the thinest double folds of peritoneum in the body. The origin of the pars flaccida is the lesser curvature of the stomach. It is simply a union of the anterior and posterior blades of peritoneum as they pass to the right from the stomach. The insertion of the pars flaccida is into the transverse fissure of the liver and the ligamentum hepatico-duodenale. Its origin is the lesser curvature of the stomach. The upper border of the pars flaccida merges into the pars tendineus by simply allowing its serous blades to divide, whence they then cover the pars tendineus on the anterior and posterior surface. At the lower border of the pars flaccida its two blades also divide and cover the anterior and posterior surfaces of the ligamentum hepato-duodenale. This portion of the lesser omentum is called pars flaccida

on account of its extreme lax appearance and loose folds. It is as transparent as glass and delicate as a cob web. The apparent cause of this excessive fold is the spigel lobe of the liver. In fetuses this factor is much plainer than in adult life. Spigel's lobe is quite large, and in very early fetal life, and also the forcing downward of the stomach by the liver, as well as the distension and contraction of the stomach, keeps up a stretching of the double-bladed membrane. Motion and pressure are the causes of the pars flaccida being so abundant in its surface. It may be noted that the gastric artery never divides into arcs or arcades in the pars tendineus and flaccida (lesser omentum) as the arteries do in the great omentum. Fat is very scarce in the pars flaccida and towards its center the double-layered membrane becomes very thin. In two cadavers I have found an aperture in the pars flaccida. The apertures had rounded, smooth borders, and would admit the index finger. The pars flaccida is the anterior boundary of the antrium bursa omentalis or bursa omentalis minor. The space it encloses easily holds a large turkey egg in an adult. The space contains a viscus—Spigel's lobe.

(3.) The pars hepato-duodenale is the third and lowest portion of the lesser omentum. The origin of the pars hepato-duodenale is the upper portion of the duodenum and lower end of the stomach. Its insertion is the transverse fissure of the liver or rather in the ligamentum venosum. It merges into the pars tendineus, as one can easily prove by pulling on it, whence its insertion will show itself. The upper border of the pars hepato-duodenale is the lower border of the pars flaccida, while its lower border is a part of the circumference of the hiatus winslowii. The pars hepato-duodenale contains the hepatic artery, the hepatic duct, the portal vein, lymphatics and bundles of the sympathetic nerves, the whole being bound together by connective tissue and covered by a thin, serous layer of epithelium. This ligament forms the anterior boundary of Winslow's foramen, which generally admits two fingers in adults. It is a strong, thick ligament. The upper border of the pars hepato-duodenale is generally somewhat sharply defined, but its lower border is broad and smooth, surrounding a part of Winslow's foramen. To see the lesser omentum in an autopsy, lift up the liver and draw down the stomach, whence the three distinct portions of the lesser omentum can be viewed. The ligamentum hepato-gastricum is the anterior mesogaster. It is the double-layered membrane in which the liver developed in very

early embryonic life. The irregular atrophy of the liver has directed this perineal duplicature to the right. It originally was in the mid-anterior region. A remnant of the mesogaster anticum is the ligamentum, suspensorium hepatis. One can prove it by tracing the suspensory ligament to the transverse fissure. The suspensory ligament arises from the shrinkage of the liver, for, in fetuses, the liver reaches with its umbilical fissure directly to the navel, while its lobes (right and left) reach down to the pelvis. The lesser omentum is the true mesentery of the liver. The prolapse and dilatation of the stomach is partly due to the elongation of the esophagus, but also to the elongation of the lesser omentum, especially the pars tendineus. The lesser omentum is as noted for want of fat as the great omentum is for its possession. The lower end of the lesser omentum forms part of the boundary of the foramen of Winslow. This aperture has received several names. In English it is known as the foramen of Winslow. In Latin the following appellations may be found in reference to it: the hiatus Winslowii, foramen Winslowii, orificum epiploicum Winslowii, or porta omentorum. This foramen is an oval aperture. It is bounded in front by the lower edge of the ligamentum hepato-duodenale (containing the hepatic artery, portal vein and hepatic duct); behind, by the inferior vena cava; below, by the duodenum and hepatic artery, curving forward from the coeliac axis; above, by Spigel's liver lobe and the transverse fissure of the liver. Winslow's foramen leads into an ante-room containing one viscus, viz.: Spigel's liver lobe. This ante-room or bursa omentalis minorisor antrum bursa omentalis is partially marked off from the whole lesser omental cavity by the fold of peritoneum projected up by the gastric artery and vein. This peritoneal duplicature projected forward by blood-vessels is known as the ligamentum gastro-pancreaticum. The remainder of the lesser omental sac contains no viscus and is known as the bursa omentalis majoris.

34 Washington Street.

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Tincture of iodine of double strength, or one drachm to the ounce of 95 per cent. alcohol, when thoroughly applied by means of a feather, or better by a camel's hair pencil, to boils, etc., will relieve all pain and shorten the stages of suppuration more than one half. *Am. Med. Compend.*

# OUR INSANE PATIENTS AND THEIR HOSPITAL RELATIONS.[1]

By CHARLES A. RING, M D., Buffalo.

All of us know and fully appreciate, or have done so, the phrase "the family physician." Occupying this position of confidence and love and honor, we have felt the responsibilities and anxieties that its labors have placed upon us, and more fully have we understood as we have intrusted to the skill of some professional brother, a life held dearer than our own. The maintenance of health, through personal hygiene or municipal sanitation ; the prevention of disease, either by introduction or extension, and the proper treatment of those requiring isolation, are all points that demand the attention and thought of the family physician. Further, it is his duty to know that those detailed by municipal or legislative enactment are efficient and competent in the use of means provided for special purposes ; and he expects that those so employed shall furnish knowledge from their experience that shall be available to himself and to the public.

And especially are we interested in our insane patients and their hospital relations, for I think that the time has now come when the thought, opinion and wish of the general medical profession shall have more force than ever before in shaping legislation and influencing the management of the hospitals for the insane. If our patients become insane, the old question of home or hospital treatment arises : Shall we, or can we, treat them at home ? May we, or must we, send them to the hospital ? If at home, the case is comparatively of such infrequent occurrence that we feel the need of special authority. Where shall we look for it ? If at the hospital, there may be the fears or the prejudices of the family that must be explained and removed. And, certainly, for ourselves, there are some strong objections. What assistance can we expect from those who have made the disease a special study ? What objections, criticisms and suggestions can we make to those to whom we intrust our patients ? What coöperation and improvement can we expect from those in charge ? The duration of insanity may be so long, averaging between ten and eleven years, and its occurrences, direct, as destruction of property, assault, mutilation, homicide or suicide ; and, indirect, as loss of income, loss of health of other members

1. Read before the Buffalo Medical Union and published by request.

of the family, loss of education of the children, are so serious that they demand that the patient shall be individualized, and given all that money and science can furnish.

In the annual report of the Utica State hospital for 1893, Dr. Blumer, in a table covering eleven years, shows that in those admitted who had been insane for more than one year, the percentage of recoveries was 10.53 ; of those insane less than one year, 41.22. Tables going into the months have shown that the rate of recoveries is higher, the earlier the patient has been under treatment. It is generally admitted that a case becomes chronic after two years, and that the percentage of recoveries in this class is very low, under two per cent.

Unfortunately, I do not know of statistics of recoveries of the insane in private practice. Hospital authorities are constantly urging the necessity of sending patients to them for treatment at the earliest possible moment. Yet what do we find in the following table to be the average duration of cases before commitment :

| | Under 1 month. | From 1 to 3 m'nths. | From 3 to 6 m'nths | From 6 to 9 m'nths. | From 9 to 12 m'nths. | From 12 to 18 m'nths. | From 18 to 24 m'nths. | Over 2 years. |
|---|---|---|---|---|---|---|---|---|
| Utica | 48<br>12.66 | 46<br>12.16 | 40<br>10.55 | 20<br>5.28 | 6<br>1.58 | 19<br>5.27 | 4<br>1.06 | 196<br>51.78 |
| Willard | 36<br>9.41 | 42<br>10.96 | 37<br>9.68 | 23<br>6.00 | 10<br>2.61 | 20<br>5.22 | 8<br>2.09 | 207<br>54.15 |
| Hudson River | 58<br>12.77 | 70<br>15.42 | 43<br>9.47 | 26<br>5.73 | 7<br>1.54 | 43<br>9.47 | 6<br>1.32 | 201<br>44.27 |
| Middletown | 54<br>15.71 | 31<br>9.03 | 34<br>9.91 | 26<br>7.56 | 8<br>2.30 | 33<br>9.62 | 9<br>2.62 | 148<br>43.15 |
| Buffalo | 47<br>14.07 | 50<br>14.97 | 27<br>8.08 | 32<br>9.58 | 8<br>2.40 | 26<br>7.78 | 7<br>2·09 | 137<br>41.02 |
| Binghamton | 30<br>12.77 | 29<br>12.34 | 24<br>10.21 | 10<br>4.26 | 8<br>3.40 | 7<br>2.97 | 3<br>1.27 | 114<br>52.76 |
| Rochester | 21<br>15.71 | 15<br>11.28 | 20<br>15.04 | 8<br>6.02 | 6<br>4.51 | 5<br>3.76 | 4<br>3.01 | 54<br>40.60 |
| St. Lawrence | ....<br>.... | ....<br>.... | ....<br>.... | ....<br>.... | ....<br>.... | ....<br>.... | ....<br>.... | ....<br>.... |
| Number of patients. | 294 | 283 | 225 | 145 | 53 | 153 | 41 | 1,057 |
| Average per cent. of admissions | 13.30 | 12.31 | 10.42 | 6.35 | 2.62 | 6.30 | 1.92 | 46.82 |

I do not give the figures of the last annual report of the St. Lawrence state hospital, as they do not balance, and I was unable to obtain correct ones.

We find that, of 2,251 patients admitted to the state hospitals during the fiscal year 1892–93, 1,057, or 46.95 per cent., had been insane two years or over. These are practically chronic or incurable cases, as the rate of recovery among them is less than two per cent. Some of these were transferred from county asylums under the state care act, but the percentage was not large, and even these do not figure, as they had been transferred from the state to the county asylums as chronic cases. Had these 1,057 cases been placed under treatment as late as even up to one year's duration of insanity, 41.22 per cent., probably, would have recovered, but as 10.53 per cent. of all cases recover, we find 30.69 per cent., or 324 patients that might have been treated successfully, and their maintenance saved. The average cost per week of maintenance of the eight state hospitals, as reported to the State Board of Charities, was $4.56. To maintain these would cost $77,086.12 a year, and for eleven and one-half years, $886,491.40. To this direct loss of the state, must be added the indirect which a competent student of social science must estimate; and what can we say of the family circles, broken by an affliction worse than death?

Now, why is it that patients are not sooner placed in hospital care? Is it because of want of confidence on the part of the family physician, who sees and studies the various reports that are courteously sent him; or because of prejudice, or, worse yet, from fear on the part of the family that the physician is not able to overcome?

The percentage of recoveries is so low that it shows insanity to be one of the most incurable of diseases, and yet we find that the number of insane patients in the care of a single physician in the state hospitals is very much larger than in the general hospitals; and it would be larger yet, if we should take out the superintendent, who is mostly engaged in affairs of an executive character. The system of internes has been suggested, and partially adopted, but this seems to be somewhat of an evasion.

At the present time, the item for the maintenance of the insane is the largest in the yearly state budget; and up to the present time, the cost of construction per bed has increased, *and very largely*. If there had been a corresponding increase in the percentage of recoveries, the complaint might not have been so

great. As long as "Gray's Folly" stands, it shall be a rebuke to the system that made the glory of the institution the point of departure, instead of the individual patient. But hold! There has been some change since the time of that most famous and successful medical lobbyist, for now, besides "The Third House," there is a "Commission" that reports directly to the legislature, and is it not rumored, or openly stated, that that "Commission" is opposed to any present appropriation for the cottage system at Collins—a system recommended by philanthropists and experts unconnected with the present system?

It would seem to me to be good financial policy for the state to appropriate enough money to secure the services of the best medical men, *and enough of them*, to meet all requirements. We can all see, physicians and legislators alike, that the interest alone on the worse than useless investments of the past would more than pay for medical attendance.

| | Cost of building. | Number of physicians. | Number of patients. | Average No. of patients to 1 physician. | Cost per bed. | Cost per week. | Per cent. of recoveries. |
|---|---|---|---|---|---|---|---|
| Utica ..... | $ 830,000.00 | 6 | 923 | 154 | $ 899.24 | $4.64 | 9.20 |
| Willard ..... | 1,134,515.00 | 9 | 2,140 | 238 | 614.25 | 2.99 | 1.90 |
| Hudson River. | 1,921,384.12 | 6 | 940 | 157 | 2,044.02 | 4.93 | 9.50 |
| Middletown .. | 1,024,500.00 | 6 | 976 | 163 | 1,049.69 | 5.57 | 10.96 |
| Buffalo ..... | 1,463,183.90 | 5 | 600 | 120 | 2,438.63 | 4.53 | 17.02 |
| Binghamton .. | 661,000.00 | 7 | 1,258 | 180 | 524.43 | 3.24 | 2.54 |
| St. Lawrence . | 1,750,000.00 | 5 | 632 | 126 | 2,768.98 | 5.20 | 11.23 |
| Rochester .... | 193,000.00 | 4 | 395 | 99 | 488.60 | 5.39 | 6.05 |

The inception and planning of Utica, Hudson River, Middletown, Buffalo and St. Lawrence State hospitals were under the old asylum system, and were carried out at an average cost of $1,839.71 per bed per patient. Willard is the result of agitation started in the New York State Medical Society in 1865, by Dr. Willard, the secretary, to remove the insane from alms-houses, and carried on by the circulation of petitions by physicians throughout the state. It was proposed to call it the Beck asylum in honor of Dr. Romeyn Beck, of Albany, author of Beck's medical jurisprudence, but Dr. Willard dying before the asylum was opened in 1869, it was named as a memorial for him. Binghamton was formerly the New York State Inebriate asylum, and Rochester, the insane department of the Monroe County alms-

house. The average cost per bed per patient in these three is $542.52.

And herein comes another violation of another fundamental law of political economy, viz., that a man should do all that he can towards his own support. The insane, under an efficient system of *employment*, can do very much on the farm, in the shop and about the institution to reduce the cost of maintenance. In one year, when Willard and Binghamton were used for chronic cases, the proportion of maintenance raised by the patients was between twenty and twenty-one per cent. in *each* institution. Two or three years later, at Willard, it had fallen to sixteen. How far below the English and continental institutions! I will not more than mention the value of systematic *employment*, not *occupation*, as one of the means of successful treatment; nor will I more than mention that class of terminal cases that an eminent German alienist termed "Recovery with defect," who, relieving the state of their support by their absence to their homes, should, in those homes, carry out the habits of industry that had been taught them in the institution. And in this connection I would say that I think there should be, on the staff of the hospital, a farmer, a practical scientific man and a graduate of an agricultural college; also a mechanical polytechnic to take charge of the shops or to start them.

As necessary as a competent medical staff is a competent corps of attendants. Much has been done to increase the efficiency of the present class of attendants in the establishment of training schools, discipline and morale. But there are essential elements wanting which cannot be obtained until better wages are paid. The attendant should be the equal of the patient socially, educationally and morally. And when this obtains, there will be few, or none, of the allegations and scandals regarding brutality towards the patient which have been so detrimental to the success of hospitals for the insane.

Of all the specialists, those connected with the insane in hospitals give us the least literature, either in the way of text-books, or papers in journals, or before medical societies. Although the *American Journal of Insanity* is one of the oldest of periodicals, its circulation is very limited among general practitioners. It has been asserted by one entirely competent, that this division of medicine has made so little progress in the last forty or fifty years, that its place in the general line of advance is practically lost, nor

is its support counted upon. The cause of this is twofold. The first is that of the extreme exclusiveness and conservatism of the association of asylum superintendents, which gradually destroyed an influence that was at first all-powerful, and had the confidence and support of the public and of the profession. Second, had there been even the most liberal tendency, the medical staffs have been so small that, engaged in the general routine of the institution, there has been no time for scientific work, research and thought.

Relatives and friends visiting patients for the first time are very often unfavorably impressed by the formality and coldness of those in charge of the reception room. Sympathetic courtesy always develops thoughts and feelings which approve and sustain discipline. On this first visit they expect to see the one called for within a few minutes, and as the time passes to half an hour, then to an hour or longer, impatience passes into suspicion and anxiety, and by the time the patient arrives, they are often ready to believe that he has been and is kept in an unpresentable state. And if the patient makes numerous complaints, or gives his opinions as to the daily life and occurrences of the ward, they are all accepted as confirming the suspicions.

Too frequently there are deaths in hospitals for the insane under very suspicious circumstances. The post mortem examinations show contusions, fractures and other injuries that could hardly have been produced by the patient himself. The press reports the matter as of the daily news or occurrences which are more or less interesting to the public. And people ask, "Why do not the authorities know what is going on? Why are not the guilty detected? Why is it that we never hear of legal punishment?" And the people are right in asking these questions. There are peculiar secret means that can be used to obtain corroborative testimony; and, if necessary, competent testimony from patients can be introduced. And especial legislative enactments have been made for the punishment of those offending against the insane. The detection of offenses by the hospital authorities and the furnishing of evidence for prosecution and conviction would be assurance which the public would most gladly accept. The trial might show peculiar revelations, but the press could be depended upon to present the matter fairly to the public for its hought and judgment.

I think it is a great mistake that the press is not taken into the

full confidence of the institution, and its corresponding coöperation or protection secured.

128 Fargo Avenue.

## ATROPHY OF THE OPTIC NERVE IN DISEASES OF THE NERVOUS SYSTEM.[1]

By ALVIN A. HUBBELL, M. D.,
Professor of Ophthalmology and Otology in the Medical Department, Niagara University, Buffalo, N. Y.

After a careful study of optic neuritis, in regard to its etiology and its relations to other diseases, I came to the conclusion a few years ago that it was but one form of peripheral neuritis, and but an expression in the optic nerve, as in other peripheral nerves, of conditions and diseases of which this is but one symptom.

At this time I desire to call attention to another state of the optic nerve, which is also but a symptom and but one expression of manifold changes going on elsewhere in the central nervous system. I refer to primary atrophy, or gray atrophy, of the optic nerve.

There are two principal forms of optic-nerve atrophy. In one there has been a preceding inflammation of the nerve, more or less pronounced, and the remains of inflammatory products are more or less visible by the ophthalmoscope. The optic disc is at first grayish-white and its margins are slightly hazy, and the veins distended and tortuous. Afterwards its surface becomes a uniform pure white or bluish-white. It is sharply defined and often appears irregular in outline and smaller than normal, and both the arteries and veins are contracted.

In the other form there are no evidences of inflammatory action having taken place. The optic disc simply loses its normal "flush" and gradually becomes paler, till at length it is perfectly white or bluish-white, and its edges are sharply defined and slightly excavated. The gray dots of the lamina cribrosa become more visible and are seen over a larger area, appearing like "stippling." The minute vessels of the disc disappear, but the retinal arteries and veins are not markedly changed as in inflammatory atrophy.

It is this latter form of atrophy, not preceded by intraocular disease, not the sequence of inflammation of the optic nerve, not due to injury of, or pressure upon the optic nerve, and not caused by some specific poison in the blood, as lead, quinine, etc., to which I desire to direct attention now. It is known by the terms primary

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

atrophy, simple atrophy, gray atrophy. It is, too often, first recognized by the ophthalmologist, alone, through a consultation for impaired vision. This impairment of vision is shown in diminution of color-sense, contraction of the fields of vision or irregular defects in the fields, and in reduction of the acuity of vision. The loss of vision, however, is often in excess of the degree of atrophy, or rather, the vision fails more rapidly in some cases than the atrophy progresses.

In typical cases the ophthalmoscope shows the appearances of the optic discs above described. But this picture is not typical of all cases, and in the exceptional ones the color of the disc varies from mere paleness, limited, perhaps, to the temporal side, to an even whiteness without "stippling," or to the distinctively stippled bluish-white. This form of atrophy is diagnosed with the ophthalmoscope by the absence of inflammatory remains on the disc or at its edges, and by the more natural size of the retinal arteries and veins and their lack of tortuosity.

This simple, or gray atrophy, although a pathological state of the nerve, is in the vast majority, and I might, I think, say in all cases, but a symptom. As Dr. Buzzard, of London, truly says : "Atrophy of the optic nerve is evidently a symptom, not a disease ; it is the visible result of a structural change which itself depends upon something more properly entitled to be considered the disease from which the patient is suffering" (*British Medical Journal*, October 7, 1893). It is as such a symptom of some other diseased condition that I wish to bring an emphasis upon it at this time, and a symptom worthy of more attentive watching on the part, especially, of the neurologist. Again, as a symptom, it is often one of the earliest to make its appearance in the course of certain grave diseases of the nervous system, and the impairment of vision usually attending it leads the patient to consult the ophthalmologist, who should at once recognize it, not as a disease *per se*, but merely as a symptom, like "paralysis," of some central nervous disease, and remand the patient to the neurologist or physician for treatment.

Those diseases in which optic atrophy so frequently becomes a symptom are, according to Uhthoff, who published the results of his carefully conducted studies in 1884, and of Charcot, Buzzard, Gowers and others :

1. Disseminated or insular sclerosis of the spinal cord and brain.

2. Tabes dorsalis or sclerosis of the posterior columns of the spinal cord.

3. General paralysis of the insane, with degeneration of the spinal cord.

4. Spastic paraplegia, or lateral sclerosis of the spinal cord.

The relation of atrophic changes to disseminated sclerosis has been more diligently studied by Dr. Uhthoff and Dr. Thos. Buzzard than by any other persons. They find this symptom more frequently in this disease than in any other, and until further investigations it is proper to accept their results. Uhthoff declares that with the exception of cerebral tumors and tuberculous meningitis there is no disease of the nervous system, not even tabes, which is so often accompanied by ophthalmoscopic changes as disseminated sclerosis. In some there is complete atrophy and loss of color of the disc ; in others incomplete discoloration, the nasal side preserving a slightly reddish reflection ; in others decoloration of the temporal side alone ; and in others still hyperemia with the appearances of inflammation. In 52 out of 100 cases the discs were abnormal. Buzzard found that 43 out of 100 cases of this disease had atrophic changes in the optic discs.

In tabes dorsalis, or locomotor ataxy, the percentage of cases of atrophy, according to Gowers and Buzzard, does not, probably, exceed fifteen. Nettleship found in seventy-six cases of optic atrophy thirty-eight cases presenting undoubted symptoms of locomotor ataxy, or 50 per cent. Gowers' experience included cases of locomotor ataxy, while Nettleship's referred to cases of optic atrophy. Putting the two together it shows the prominence which this symptom has in this disease. Atrophy of the optic disc appears in most cases of tabes in the early stage before the gait is affected ; in a few after the gait is affected ; and scarcely ever after the patient is unable to walk except by the help of an assistant. The atrophy of the optic nerve in tabes, together with the visual disturbances, is usually much more pronounced and grave than in disseminated sclerosis and nearly always is progressive and leads rapidly to blindness. Dr. Buzzard says that the disc in disseminated sclerosis may acquire a pearly whiteness, but this only exceptionally involves the nasal as well as the temporal side. He has never found it assuming the look of that which is often met with in tabes—"flat, dense and uniform, of a cold, bluish-grey tone, suggesting the idea of its being painted in opaque oil color,

with very few retinal vessels visible upon it and a marked absence of minute vascularity."

In general paralysis of the insane there is also a large proportion of cases with optic atrophy. Uhthoff puts it at 50 per cent. and remarks that this is probably too small.

Cases of spastic paraplegia or lateral sclerosis also exhibit a certain proportion of cases affected with optic atrophy, but just what this is has not been determined. It may vary from 5 to 10 per cent.

By this very brief resumé it may be seen that in optic-nerve atrophy alone, to say nothing of those other cases characterized by inflammation of the disc as seen in cerebral tumors, meningitis, cerebral abscess, etc., the neurologist possesses an important accompaniment to the group of symptoms which enter both into the diagnosis and the treatment of a given case. It also suggests the desirability of every neurologist possessing a knowledge of and ability to use the ophthalmoscope.

DISCUSSION.

Dr. L. Howe: Mr. President, I want to venture one word in regard to this subject. We see them in that stage, the chronic stage; we see them in the stage after which it has passed through the acute stage, and I think the importance of that class of cases to which the author has called attention forces itself upon a certain class of practitioners with great intensity. Within the last few weeks the physicians who are attending at the general hospital have had a case which has gone through this acute stage. The girl is practically blind. It is less than a week since I had occasion to see a case with Dr. Hitzel, a child that has gone through the acute stage. It is questionable if it can hear; it can see nothing. I will not stop to consider any question as to the treatment, but I do want to say that a familiarity with the ophthalmoscope, which can be obtained with comparatively a slight degree of effort, would assist one in very many cases, not only as to the question of diagnosis in that acute stage, when it is of importance, but also as to questions of treatment there, which are of importance at that time, and when they are seen afterwards that time has passed—those people are blind. I am very much obliged to the doctor for calling attention to it. I think it is an exceedingly important point.

Dr. F. S. Crego: Mr. President, from the neurological standpoint I want to emphasize two points the doctor has made. The

first is, in a large number of cases there is atrophy of the optic nerve early in certain forms of nervous trouble. About two years ago Dr. Hubbell referred a case to me that had been under his observation for five years. The man, five years before, he had noticed had atrophy of the optic nerve. Just then he was beginning to have or did have pronounced locomotor ataxia. The eye changes commenced two or three years before the nervous symptoms appeared. He never had had any of these symptoms of locomotor ataxia, but he had had trouble with his eyes two or three years before. That was a very interesting point to me. I never knew of a case which came on so early and continued so long before the nervous symptoms appear.

The next point I want to emphasize is the one Dr. Howe has spoken of in regard to the ophthalmoscopic examination. Last night a man, whom I had seen before, consulted me, and after talking with him some considerable time I became convinced that he had the initial symptoms of paresis. He didn't have any of the marked symptoms, but he acted very peculiarly and had rather exaggerated ideas of his ability and so on, that gave me the idea that he had paresis. A slight examination of the eye with the ophthalmoscope revealed atrophy of the optic nerve, and I was convinced after that examination that the man eventually would have paresis. And that emphasizes the point Dr. Howe and Dr. Hubbell brought out in the paper. I am exceedingly obliged to Dr. Hubbell for his clear presentation of the matter.

Dr. Hubbell (closing the discussion): You will bear in mind that my paper referred simply to another kind of atrophy—not the acute stage that Dr. Howe has referred to, but without any acute stage—chronic from beginning to end and without any preceding inflammatory symptoms. I am thankful to the doctor for his remarks, inasmuch as he emphasizes the fact that the practitioner ought to use the ophthalmoscope and that the ophthalmoscope can be of the greatest aid to him in diagnosis as well as treatment.

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Dr. Paul Paquin, of this city, in the *Hot Springs Medical Journal*, says that essence of cinnamon is the first in the list of non-poisonous antiseptics and the strongest, that it is next to bichloride of mercury in its value as an antiseptic, and that the odor of it destroys certain germs.—*St. Louis Clinique*, Dec., 1894.

# Clinical Report.

## VESICAL CALCULI IN THE FEMALE—REPORT OF A CASE.

By FREDERICK J. MANN, Ph. B., M. D., Watertown, N. Y.
Formerly of Resident Staff Buffalo General Hospital.

I am enabled to report the following case through the courtesy of Dr. M. D. Mann and Dr. Chas. Cary, who were attending at the hospital when the case occurred.

Mrs. H., age 72, German, widow, was brought to the general hospital in the ambulance in a semi-conscious condition, probably due to a slight cerebral hemorrhage, from which she recovered in two or three days. Has had five children who would now be from 41 to 49 years of age. She has lived alone for the past fourteen years, leading a hermit life, being considered "queer," perhaps harmlessly insane, by her family. She gave a very incomplete medical history of herself.

On admission, patient was found to have a tumor protruding from her vulva, measuring about eight inches in diameter, which so projected between her legs as to make it impossible for her to lie on her back. It was somewhat ulcerated from contact with her thighs. This had existed for thirty years, being at first small and for the last few years increasing rapidly in size. Examination showed it to be a prolapsus of the uterus and vagina. Under an anesthetic it was easily reduced by taxis; gurgling, showing it to be an enterocele. After reduction a tampon was placed to keep the uterus in place and the patient put to bed.

Two days later twelve vesical calculi were passed during micturition and three hours after this, some of the tampons having meanwhile been removed, eleven more calculi were passed, some of these later the nurse having to pick out from the meatus urinarius. Again, the next day, three more were passed, making a total of twenty-four. A careful watch of the urine was kept during the following three weeks that the patient remained in the hospital, but no more calculi were found.

The calculi were facetted, polyhedral in shape, practically uniform as to size, being about one-fourth inch to three-eighths inch in diameter and composed of uric acid with a phosphatic crust. The urine, while in the hospital, showed presence of neutral, tripple and amorphous phosphates and was slightly alkaline, otherwise normal. On account of the mental state of the patient no further reliable information as to previous condition could be obtained. The case is interesting as showing the result of a possible twisting and partial compression of the urethra by a severe prolapse, thereby giving a tendency to the formation and retention of calculi, just as occurs in the male. The uterus

remained in its proper place during the three weeks the patient stayed in the hospital, the tampons having been removed. She then left the hospital and was lost sight of.

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# Reports of Societies.

## THE EIGHTH PERIODICAL INTERNATIONAL OPHTHALMOLOGICAL CONGRESS, HELD AT EDINBURGH, AUGUST 7–11, 1894.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

(*Concluded from page 487.*)

### SUPPLEMENTARY REPORT.

Since my report of the congress was completed, the official transactions have been received. These include other communications which were presented to the congress, but not read, and they are of so much importance that abstracts of them are hereby appended.

### TITLE OF PAPERS.

51. The treatment of recurrent vascular ulcers of the cornea and phlyctenular pannus, by Dr. M'Gillivray, of Dundee.

52. Notes on a case of implantation of eyelash in the anterior chamber, by Dr. M'Gillivray, of Dundee.

53. Degrees of astigmatism, however low, when they annoy should be corrected, by Dr. Chisholm, of Baltimore, Md.

54. Two cases of spontaneous recurring intraocular hemorrhage, by Dr. Taylor, of Norwich.

55. A problem in neurology.—Peculiar iris-reaction with post-neuritic atrophy, by Dr. Gould, of Philadelphia, Pa.

56. The treatment of conical cornea by the thermo-cautery, by Dr. Emrys-Jones, of Manchester.

57. Operative procedure for distichiasis, by Dr. Germaix, of Algiers.

58. Pseudo-membranous conjunctivitis and its clinical forms in Egypt, by Dr. Sameh, of Cairo.

59. Javal's ophthalmometer employed for exophthalmometry and ophthalmostatometry, by Dr. Antonelli, of Naples.

60. Simple and combined sclerotomy, by Dr. De Wecker, of Paris.

61. On strabismus, especially strabismus of adolescents in relation to head-conformation, by Dr. Weiss, of Heidelberg.

ABSTRACTS OF PAPERS.

M'Gillivray (51) treats phlyctenular pannus and ulcers of the cornea with an ointment composed of atropine (alkaloid), yellow oxide of mercury and cocaine (alkaloid) in the proportion of grains j, ij, iij, respectively, with vaseline or lanoline ʒij, as a base. The ointment may be applied every two hours to commence with and gradually lessening the number of applications after healing has commenced.

M'Gillivray (52) also described a case in which a blow had been received on the right eye, nineteen days before the first examination. There was an irregularly-shaped leucoma situated horizontally and a little below the center of the cornea, and lying vertically in the anterior chamber was an eyelash which was adherent by one end to the center of the corneal cicatrix, while the other end rested on the anterior surface of the iris near the angle of the anterior chamber. Removal of the eyelash was refused and eighteen months after the injury there was no appearance of irritation and the vision was the same as that of the left eye.

Chisholm (53) protested against two statements of very general acceptance, namely, that irregular curvatures of the cornea, measuring less than 1.00 D., are not worthy of recognition, and that persons who have $\vee = \frac{2}{2}\frac{0}{0}$ in each eye cannot have astigmatism. He had found that an astigmatism of 0.25 D. often causes serious eye disturbances and should then be corrected. "Head ache with eye-discomforts in young, healthy-looking people, who are not troubled during periods of eye-rest, means a low degree of annoying astigmatism."

Taylor (54) detailed two cases of that rare disease, spontaneous recurring intraocular hemorrhage. In an acute attack, he advised keeping the patient absolutely quiet, with head raised and ice applied to the eye and giving large doses of astringents and, possibly, when pulse is hard and full, applying three or four leeches near the outer canthus or, if the pulse has low tension, administering digitalis. Afterwards ferruginous aperients may be used and the eyes shaded and given prolonged rest.

Gould (55) reported a case of a girl twelve years old, who became totally blind from a most intense neuroretinitis in both eyes, followed by an absolute, white atrophy of both optic nerves and in which there was stabile mydriasis.

The most brilliant and concentrated light thrown suddenly or con-

tinuously on the pupil failed utterly to elicit iris-reaction or perception-response. But by seating the child before an open window, the street in front being illumined by sunlight or diffuse daylight, within half a minute or more, the pupils were found to be of normal size.

The parents had noticed the same effect when the child was out of doors. The contraction of the pupil was slow and so was the widening, when the patient's face was turned from the window. The mechanism by which this phenomenon was produced was a problem which suggested several queries.

Emrys-Jones (56) treats conical cornea with the thermo-cautery as follows: Fully dilate the pupil with atropine, anesthetize the cornea with a 4 per cent. solution of cocaine, and apply Paquelin's thermo-cautery with a moderately small point at red-heat, a little to the outside of the tip of the cone with great caution till the cornea is perforated, as shown by the escape of a thin spray of aqueous humor. The eye is then bandaged, the patient kept as much as possible on his back, and the pupil widely dilated. The burn becomes healed in seven to twenty-one days. In time the operation may be repeated if the cones do not disappear after the first operation. Most excellent results were reported.

Germaix (57) operates for distichiasis by a combination of several known procedures. He splits the edge of the lid sufficiently high to raise the anterior segment containing the ciliary roots till the cartilage beneath is exposed six to seven millimeters. A crescent-shaped piece of skin is also resected from the lid above, more or less wide, according to the laxity of the lids. Four sutures are then passed underneath and around the ciliary flap, so as to embrace it, and these are loosely drawn so as to raise and shorten the flap without strangling it, and are tied in front. The cicatrization between this flap and the superior part of the lid is allowed to take place without sutures by simple contact. The threads are removed on the third to the sixth day.

Sameh (58) contributes a long article on the clinical history and treatment of pseudo-membranous conjunctivitis as seen in Egypt.[1]

Antonelli (59) describes a new application of the ophthalmometer to the measurements of exophthalmos, whether pulsating or

1. There was a good deal of "threshing old straw" at the meeting, but the offering of this article was perhaps the most audacious effrontery of all. This paper had been read before at the French Ophthalmological Society, May 10, 1894, and may be found *verbatim* in the *Bulletins et Mémoires de la Société Francaise d'Ophthalmologie*, 1894, p. 318.

not, differences of level of the two eyes, the amplitude, frequence and direction of oscillations in nystagmus, etc., and various defects of position of the eyes. As an aid in determining some of these conditions, he has added an ingenious attachment to the ophthalmometer, which he calls the "ophthalmostatophantom." This he fully describes and illustrates.

De Wecker (60) presented an interesting paper on simple and combined sclerotomy for glaucoma. After relating something of the history of simple sclerotomy and operative iridodialysis, he says: "The ideal operation in glaucoma is evidently a large scleral incision combined with iridodialysis running the whole length of the cicatrix formed in the trabecular pericorneal tissue." This operation, which he terms "combined sclerotomy," he describes as follows: "After having put the eye fully under influence of eserine, and having instilled, twice only, and that immediately before the operation, one drop of a two per cent. solution of cocaine, I introduce my knife, which is six mm. wide up to the shoulder with which it is provided, at a point one mm. from the transparent border of the cornea, and I generally choose the point lying in the prolonged vertical diameter. Having allowed the aqueous humor to drain off very slowly so as to avoid any prolapse, I insert a very delicate pair of iridectomy forceps into the wound, of which the convex extremities of the blades are carefully rounded so as not to present the least roughness. As soon as the closed extremities are seen at a distance of two mm. from the corneal border, I open the forceps and seize the iris close to the periphery, and I very gently push back the part seized along the posterior surface of the cornea towards the center of the latter. A fairly free hemorrhage generally indicates the detachment, and, as the field of operation may be obscured by blood, one must bear in mind that the forceps, contrary to what one is accustomed to do, must be withdrawn with the blades *open*."

Weiss (61) has made extensive measurements of the face and head in patients affected with strabismus, and finds that these are different in cases of the convergent form from those of the divergent.

The head-diameters, "temporal, aural, greatest zygomatic," are taken, and the difference between the inner and outer orbital edges, the angle of inclination of the orbital entrance, the pupillary distance, the distance of the "corneal vertex" from the external orbital margin are determined. In divergent strabismus

he found that the planes of the sides of the face are directed more exactly forwards (parallel), while in convergent strabismus these planes converge, anteriorly, more or less. He also found that in children with hypermetropia the axes of the orbits are directed forwards more exactly parallel, while in myopic children they diverge. He believes that these conformations, as determined by the measurements which he describes, have a practical bearing upon the treatment of strabismus in children, and should always be taken into consideration.

[*Errata.*—Page 298 (December number of JOURNAL), line seventeen from top, for *Zehender, of Munich*, read *Hansen-grut, of Copenhagen;* page 485 (March number), line three from top, for *inferior*, read *superior;* line nine from top, for *180*, read *180°*; line six from bottom, for *2°*, read *2.00 D.*; page 487, line three from top, for *Doyer*, read *Doijer.*—A. A. H.]

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## UNIVERSITY OF THE STATE OF NEW YORK.[1]

REGENTS' OFFICE, ALBANY, N. Y.

Extract from 1894 Report of the Examination Department. (Advance Sheets.)

[MEDICAL.]

AN ANALYSIS of the results of the licensing examinations since September 1, 1891, shows:

That 8.9 per cent. of the old school[2] candidates were rejected in 1892, 7.4 per cent in 1893 and 20.2 per cent. in 1894; that 25 per cent. of the homeopathic candidates were rejected in 1892, 9.5 per cent. in 1893, and 13.7 per cent. in 1894; that 50 per cent. of the eclectic candidates were rejected in 1892, 28.5 per cent. in 1893 and 50 per cent. in 1894.

During the three years 56, 267 and 390 old school candidates have been examined, 8, 21 and 51 homeopaths and 4, 7 and 4 eclectics, making a total of 808, of which number 121, or 15 per cent., were rejected.

This result is remarkable when we consider that admission to the licensing examinations, presupposes the preliminary education required by statute and graduation with the degree of bachelor or doctor of medicine from a registered medical school.

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1. Published by permission of the Director of Examinations.

2. This term is as it appears in the report. We are not responsible for its use.—EDITOR.

It speaks well for New York State medical schools that of the 445 candidates examined during the year ending July 31, 1894, 291 were graduates of New York medical schools and 154 of schools of other states and countries, and that of the eighty-eight candidates rejected at these examinations forty-two were graduates of New York medical schools and forty-six of schools of other states and countries. The detailed report which follows gives the record for each institution.

The work of the older practitioners compared favorably in 1893 with that of the recent graduates:

| | | |
|---|---|---|
| Of those examined on graduation | 8.2 | per cent. were unsuccessful |
| " " " after one year's practice | 6.2 | " " " " |
| Of those examined after two years' practice | 16.6 | " " " " |
| Of those examined after not less than three or more than thirty-three years' practice | 10.8 | " " " " |

In 1894, the statistics are not so favorable to the older practitioners, being respectively 13, 23, 14 and 44 per cent. It will be noted that candidates two years out of college did far better than those examined after one year and about as well as recent graduates. Of the thirty-one rejected candidates who had practised for at least three years, seven had practised three years, six four years, three five years, eight from six to nine years and only seven more than nine years.

Failures for the year in the several topics were as follows: Anatomy, 12; physiology and hygiene, 12; chemistry, 18; surgery, 17; obstetrics, 44; pathology and diagnosis, 33; therapeutics, practice and materia medica, 15.

It is remarkable that old practitioners do better in anatomy and in chemistry than in obstetrics or pathology and diagnosis. These statistics show at all events that in the only subject for which some have demanded two standards, the old practitioners do not need special dispensations.

Dr. Perry H. Millard tells us that in the decade from 1880 to 1890 medical schools in the United States matriculated 115,355 students and graduated 40,996, or an average of more than 4,000 annually, in his opinion twice as many as the requirements of the people demand.

As New York is the acknowledged center of medical education

in the United States, we should naturally expect the number of physicians graduated annually by her medical schools to be greater in proportion to her inhabitants than that in other states. Under former laws between 600 and 800 physicians were graduated yearly by New York medical schools.[1] On the basis of population alone the quota of physicians for New York should not exceed 400. Though under the present law the total number licensed annually will be about 400, (365 from January 1, 1895,) yet as the New York schools furnish physicians for other states. they will probably continue to graduate a larger number than apply for license (536 from January 1, 1894, to January 1, 1895).

The record of the past year proves conclusively the statements made in the 1893 report that the new law, while an effective barrier to the ingress of the imcompetent, has also operated to raise the standard of preliminary education and to improve terms of study and methods of teaching in the medical schools. The law is now quite satisfactory with the exception of the preliminary requirement, which is still far too low, and which we hope will be advanced so that with the class matriculating in 1897, at least a full high school course will be required. The second defect is in the section relating to penalties and their collection. A bill to correct this defect passed both houses of the 1894 legislature, but failed to receive the approval of the governor.

Perhaps the strongest argument in behalf of adequate medical legislation is found in the statistics based on the proportion of physicians to the number of inhabitants in a few of the European countries, as compared with the number in the Uuited States. These statistics are given as follows in the admirable paper of Dr. Millard, read in 1892 before the American Academy of Medicine, at Detroit, Michigan :

RATIO OF PHYSICIANS TO POPULATION.

| | |
|---|---|
| Sweden | 1 to 7,000 |
| Italy | 1 to 3,500 |
| Germany | 1 to 3,000 |
| Austro-Hungary | 1 to 2,400 |
| France | 1 to 2,000 |
| United States | 1 to 600 |

1. In 1887, 610 ; 1888, 632 ; 1889, 611 ; 1890, 739 ; 1891, 790 ; 1892, 661 ; 1893, 620 ; 1894, 553.

Dr. William Pepper, in an appendix to his instructive addresses on Higher Medical Education, published in 1894, revises some of these figures as follows:

| | |
|---|---|
| Italy | 1 to 3,536 |
| Germany | 1 to 3,038 |
| Austro-Hungary | 1 to 3,857 |
| France | 1 to 2,666 |

He also publishes a still more significant table, from which we reprint a few statistics:

| | Population. | No. of Physicians. | No. of Medical Schools. | Proportion of Schools to Population. |
|---|---|---|---|---|
| Sweden | 4,802,751 | ..... | 3 | 1 to 1,600,917 |
| Italy | 30,347,291 | 8,580 | 21 | 1 to 1,445,109 |
| Germany | 49,428,470 | 16,270[1] | 20 | 1 to 2,471,923 |
| Great Britain | 37,740,285 | 22,105 | 16[2] | 1 to 2,358,767 |
| Austro-Hungary | 41,231,342 | 10,690 | 8 | 1 to 5,153,917 |
| France | 38,343,139 | 16,593 | 7 | 1 to 5,477,591 |
| United States | 62,622,250 | 100,000 | 140 | 1 to 440,151 |

If we compare the proportion of schools to population in the United States as given in the census of 1890, we find the ratio 1 to 428,418, in New York; 1 to 559,736, in Massachusetts; 1 to 193,279, in Ohio; 1 to 425,190, in Illinois; 1 to 876,335, in Pennsylvania, and elsewhere from 1 to 57,598 in the District of Columbia to 1 to 2,235,525 in Texas, with only six states in which the ratio is more than 1 to 1,000,000.

There are more medical schools in the United States alone than in countries whose total population is six times as great, and yet less than one dozen of these medical schools in the United States are endowed.

Under these conditions we must expect ridiculously low requirements both for matriculation and for graduation where the public is not protected by statutes which establish minima standards.

Of the 140 medical schools in the United States there are, we believe, only fourteen[3] which absolutely require a four-year course

1. Including officers of health.

2 Not including hospitals in which instruction is given, diplomas for which office were abolished December 30, 1892.

3. *New York*—College of Physicians and Surgeons, Medical College and Hospital for Women, Homeopathic Medical College and Hospital, Woman's Medical College of the New York Infirmary; *Pennsylvania*—University of Pennsylvania. Woman's Medical College of Philadelphia; *Massachusetts*—Harvard University Medical School, Boston University School of Medicine; *Michigan*—Department of Medicine and Surgery, University of Michigan, Homeopathic Medical College, University of Michigan; *Illinois*—Northwestern University Medical School; *Tennessee*—Maharry Medical Department of Central Tennessee College; *Maryland*—Johns Hopkins Medical School; *North Carolina*—Leonard Medical School.

of medical lectures. Nearly 100 schools announce that they graduate on three terms of lectures, and about twenty-five on two terms, the length of the term varying from five to nine months.

Most foreign countries, including some regarded by us as only semi-civilized, require a four, five or six year medical course after completion of rigorous preliminary requirements.

A six year medical course is required in Guatemala, Turkey, Egypt, Argentine Republic, Brazil, Chili, Italy, Netherlands (average time seven years), Norway (six to eight years), Sweden (usual duration of medical studies ten years), Uruguay, Venezuela; a five year medical course in Great Britain, Portugal, Russia, Roumania, Mexico, Switzerland, Peru (for B. D.—seven years for license); a four year medical course in Austro-Hungary, France (frequently more than five years), Germany (for M. D., except at Erlangen, which is three years—for license, six years), Hayti, Japan, Spain (for M. D.—six years for license).

Matriculation requirements in most foreign countries are still more exacting as compared with our standards. In Germany the matriculant must have passed the *Abiturientenexamen* after completing the course of nine years in a *Gymnasium*. This examination presupposes as much work as is usually covered at the close of the sophomore year in a registered American college. Pharmacists must have passed the examination at the close of six years in a *Gymnasium or Realschule* (*Zeugniss zum einj. Dienste*), dentists and veterinary surgeons, that at the close of seven years (*Zeugniss der Reife fuer eine Gymn. oder einer Realschule*).

In Austro-Hungary, Russia and Switzerland, the requirements for matriculation to medical study are on about the same plane. In France the degree of *Bachelier és lettres* (equivalent to graduation from a full high school classical course), and additional examination in physics, chemistry and the natural sciences are required. A similar standard is maintained in Italy (*Licenza liceale*), Spain and Cuba (*Bachillerato* and a supplementary examination). In England the minimum test, fixed by the program of the British medical council, like our own is comparatively low, though many English students either have passed a matriculation examination in arts or hold the B. A. degree. In the Canadian provinces also the varying requirements do not represent in any case the completion of a registered high school course and are not as high as Germany exacts from students of pharmacy, dentistry or veterinary medicine.

# Selection.

## THE GOLD PREPARATIONS IN SOME SKIN DISEASES AND SYPHILIS.

By A. H. OHMANN-DUMESNIL, A. M., M. D.,

Professor of Dermatology and Syphilology in the Marion-Sims College of Medicine, St. Louis; Consulting Dermatologist to the St. Louis City and Female Hospitals; Dermatologist to the Alexian Brothers Hospital, Pius Hospital, Rebekah Hospital, Etc.

THERE are so many preparations of a novel nature, or which are merely revivals of old ones in a new form, being daily offered to the medical practitioner, that he is often at a loss whether to use any of them. Not content with the inherent qualities of these preparations, their promoters either vaunt them as universal panaceas or construct the reading matter so clumsily that one naturally inclined to test the efficacy of the drugs calmly puts them aside until such evidence is forthcoming as will prove convincing and be clearly set forth. It is for this reason that clinical experience is so valuable when based upon careful observation and a knowledge of the conditions present.

Our knowledge of the therapeutical action of gold has, up to within a few years, been based upon the hypothetical dicta of the alchemists. Gradually the matter was taken up again, at first by the Arabian physicians and afterward in Europe. Once more it fell into disuse and was rescued from oblivion by Hahnemann, who introduced it in his pharmacopeia. However, this did not give it much of an impulse and it is only of late years that this metal has undergone any serious investigation concerning its therapeutical properties. Among American investigators Bartholow, Heneage Gibbs, and Shurley are the most prominent. Dr. Shtcherbok has made thorough investigations also.

The most active salt of gold is the bromide, and it is particularly so upon the nervous structures, but small doses being necessary to produce effects. The action of gold is essentially that of an alterative. It has no cumulative effect; but, when toxic doses are administered, mental excitement, amounting to delirium at times, manifests itself. A prominent symptom of its excessive action is an excessive flow of saliva, the so-called *aurism*. Remembering this in connection with the fact that very small doses produce the effects of the remedy, more especially in the form of the bromide, some care should be exercised in its administration.

Among the therapeutic effects of gold may be noted the fact that it is tonic, more especially to the nervous system, and this accounts for the fact that it is an aphrodisiac of no mean power. It was highly esteemed many years ago as an antisyphilitic and recent experience confirms this view, more especially in the later forms of the disease.

The cutaneous troubles in which I have had occasion to employ the gold preparations to any extent are limited. In acne and eczema of a subacute or chronic character I have found arsenauro an invaluable adjuvant. On the other hand, in chronic eczema and in the later manifestations of syphilis, mercauro has proved itself almost a specific; so much so that its administration was always attended by marked improvement, which ceased so soon as it was discontinued. This it was which attracted my attention to the gold preparations, and in investigating their therapeutical properties I have been impressed by the fact that the most active as well as most efficient salt of gold is the bromide. It not only acts powerfully when administered alone, but seems to increase the therapeutic effects of arsenic and of mercury and for that reason much smaller doses of. these agents may be given, better results obtained and, at the same time, security from toxic effects will be secured. These are the qualities which recommend the preparations mentioned above, which are true chemical combinations and not empirical mixtures.

It may not be inappropriate to mention a few cases from practice illustrative of the good effects of gold preparations in diseases of the skin and in syphilis :

Case I.—Miss F. B., a dark blonde of seventeen years, has been suffering from a marked pustular acne for two years. She is very nervous in disposition. Vlemingkx's lotion ordered applied at night, and resorcin ointment every morning. In addition, the pustules were emptied thoroughly every day. Some little improvement showed itself, but it was not stable. A "nervous" attack would cause the eruption to manifest itself in a marked relapse. After two months of this treatment, with variations of the external measures, she was placed on ten drops of arsenauro three times a day. In one week the eruption had disappeared, and now, after a lapse of two months, no lesions have appeared.

Case II.—Miss B. R., a blonde of eighteen years, states that she has been suffering from a papular acne, with comedones, since she was thirteen years of age. Free incisions of the papules, together with a sulphur ointment locally, failed to procure any decided effects until

arsenauro was used. Her face is now perfectly smooth and clear and downy.

Case III.—Miss M. P. was suddenly attacked by an intense pruritus, accompanied by a mild form of ichthyosis. The ordinary antipruritic solutions did not allay the itching. The peculiar form of pruritus, together with the ichthyotic condition (not congenital), pointed to a central origin of nervous nature. Added to the antipruritic solution was arsenauro, administered in ten-drop doses before each meal. Improvement set in almost immediately, and at the end of three weeks the patient was cured. This occurred despite the fact that the trouble had lasted about a month before I treated her, and despite all the local treatment which she had been given.

Case IV.—C. R., a man of about sixty years, has suffered from general pruritus for several years. At the time he applied for treatment he was emaciated and haggard from loss of sleep due to the obstinate itching from which he suffered. He could only rest after complete exhaustion, and even then sleep was not only not enjoyed, but lasted for the briefest periods only. He presented many of the symptoms of neurasthenia. An antipruritic lotion, to be applied three times daily, and arsenauro, in fifteen-drop doses before meals, have markedly ameliorated his condition. He bids fair to make a complete recovery in a short time.

Case V.—Miss M. Z., a girl of twenty-four years, has been troubled with a rosacea involving almost the entire face for a period of four years. She is of a markedly neurotic temperament, and her skin will become congested visibly if she gets excited in her conversation. The best reducing agents used externally have had but little influence upon the cutaneous affection. Her stomach was not in order, the trouble being, apparently, so-called nervous dyspepsia. Bearing in mind the close relationships between rosacea and gastric disorders, she was ordered five-drop doses of arsenauro before meals in addition to local applications. Marked amelioration of the gastric and dermal symptoms appeared, and now she is practically cured.

Case VI.—Miss H. L., a strong, stout girl of seventeen years, has suffered for a long time from urticaria. A close examination of her case shows that she is intensely susceptible to nervous perturbations. She complained of slight gastric crises at times, which disappeared spontaneously, but were always accompanied by a marked urticarial eruption involving the entire integument, including the scalp. While an antipruritic relieved the condition temporarily, internal measures failed to procure relief until fifteen-drop doses of arsenauro were given and diminished gradually to ten drops three times a day, until the condition was relieved. This relief has now lasted for four months with no indications that the disease will recur.

Case VII.—Mrs. B. H., an old lady of fifty-seven years, had been troubled with a marked case of eczema for a number of years. Her chest, back, arms and thighs, as well as abdomen and breasts, had been the seat of a most intensely itching papular eczema for years. Her forearms and legs were affected with the squamous form of the same disease, the folds of the elbows and the popliteal spaces presenting marked fissures. Constipation which existed was relieved by the acid aperient mixture, and an antipruritic lotion followed by a menthol ointment partially relieved the patient After a time the condition remained *in statu quo*. As no improvement would appear, she was placed on ten-drop doses of mercauro three times a day, and the dose increased until she took twenty drops at a dose. Improvement was noticeable to such a degree that in one month no traces of the eczema appeared. She was continued on the remedy for two weeks longer, and has continued well ever since, a period of about four months.

Case VIII.—Mr. C. H., an old gentleman of eighty-two years, was troubled with marked eczema of a squamous nature localized upon the backs of his hands. Being placed upon the same treatment as Case VII., much more rapid results were observed. He has had numerous relapses, however, due to the fact that he will handle mortar and similar irritating substances, including frequent washing of the hands. A strict adherence to injunctions, however, is always followed by a rapid return to the normal. Of course, water externally is always prohibited in these cases of eczema.

Case IV.—Mr. A. F., a young man of thirty-two years, applied for treatment for undefined pains in the head and swellings of the forefinger and thumb of the right hand, on the left ramus of the jaw, and over the right clavicle. He had contracted syphilis some five years before. He was given mercauro in fifteen-drop doses, to be increased five drops every week until thirty drops were taken thrice daily, or until vertigo declared itself, when the remedy was to be discontinued for a time. Marked effects for the better declared themselves long before the thirty-drop doses were taken. These latter had to be discontinued after a week on account of the vertigo which declared itself. The swellings, however, had gone down, the backache and headache had disappeared, and the patient slept quietly and was refreshed, something he had not known for a year previously. He resumed the treatment after a rest of two weeks and feels strong and buoyant instead of weak and melancholic.

Case X.—Mr. O. W., a married man of forty-three years, contracted syphilis about two years and a half ago. The condition remained unrecognized for about six months. He then applied to me for treatment. His symptoms disappeared rapidly under active mercurial treatment, followed by the mixed. I lost sight of him for about

a year, when he applied for the relief of a bursa of the left knee which had been cut open by a surgeon. It returned, and he was advised an elastic knee cap and placed upon mercauro in twenty-drop doses three times a day. The bursa gradually reduced, and the patient, deeming the elastic bandage sufficient, discarded the medicine. The effusion began increasing and he quickly resumed the mercauro, and I had the satisfaction of observing the effusion entirely disappear. This patient indulged in increased doses which brought on vertigo. This symptom disappeared, however, upon resuming the original quantity. So far as any other syphilitic symptoms are concerned, they are not evident, and the patient feels both cheerful and contented.

These cases have been roughly outlined so as not to weary the reader. They are what might be called sample cases from a large number of similar ones which have terminated favorably under the influence of the gold preparations mentioned. One feature which has been particularly noticed in connection with mercauro is its marked aphrodisiac properties. While only male patients have mentioned this, no doubt the female ones experienced similar sensations or exhilaration. This latter has been alluded to by a number of patients of both sexes. There is no doubt in my mind that the bromide of gold is the most efficient salt of the metal, and it appears to exercise a two-fold effect therapeutically—viz., it increases the action of the arsenic and mercury with which it is combined, and at the same time it seems to prevent the manifestation of toxic symptoms. It is itself very efficient, if we are to believe competent authority, which states positively that bromide of gold is thirty times as efficient as the other bromides.

So far as the preparations mentioned are concerned, they are efficient and rapid in action and the manifest effects of the gold are evident. An exact dosage by means of measuring the drops is attained and ease of administration is secured, no disturbance of the stomach resulting from their ingestion. The vertigo which is experienced disappears as soon as the dose is diminished. I have had no occasion to observe aurism up to the present. In fact, I have seen none but the good effects of these gold preparations. One point, however, must always be borne in mind. The indications presented must be such as demand gold. Some of the older writers maintained that gold was the remedy for syphilis, whereas it is only in the later and deeper manifestations that its good effects are shown. Furthermore, gold and its preparations will not have good effects in all skin diseases, but will prove a most valu-

able adjuvant in such as have a distinct neurotic base as an etiological or complicating factor.

It is the hope of the writer that the few clinical notes jotted down above may serve as a stimulus to further inquiry into the therapeutical worth and more extended application of gold and its salts, as it is a matter of interest and possibly of the greatest importance, more especially in the treatment of many chronic affections of viscera and organs.—*New York Medical Journal.*

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New Observations in Gonorrhea.—At the recent meeting of the German dermatological association, considerable time was devoted to the discussion of the etiology of gonorrhea, and among the interesting points brought out, an observation by Wertheim is deserving of especial attention. This careful investigator has found that gonococci obtained from the secretions of chronic gonorrhea can be cultivated so as to acquire a high degree of virulence, and when inoculated in the urethra of the patient from whom they were derived will give rise to an intense gonorrheal inflammation. It has been quite frequently observed that patients suffering from latent gonorrhea at the time of marriage have infected their wives and at a later period acquired from them in return an acute urethral inflammation. Wertheim's experiments are, therefore, of importance in affording a rational and scientific explanation of this clinical observation.—*International Journal of Surgery.*

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Two Easy and Delicate Tests for Albumin in Urine.—Dr. C. Fouchlos (*Progrés Medical*) recommends two new tests for albumin in urine, for which he claims utmost delicacy and absence of any possible fallacy.

(1) Add to the suspected urine a few drops of a 1 per cent. solution of corrosive sublimate; in case of turbidity, add some drops of acetic acid. If the turbidity persists it is due to the presence of albumin.

(2) Take 100 cc. of a 10 per cent. solution of sulpho-cyanide of potassium, and mix with it 20 cc. of acetic acid. Add a few drops of this mixture to the urine. If albumin is present in small quantities, an immediate turbidity will ensue; if in larger quantities, a heavy white precipitate will appear.—*Med. and Surg. Reporter.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

## PELVIC INFLAMMATORY DISEASE—WHAT IS TRUE CONSERVATISM IN ITS TREATMENT?

A REMARKABLY interesting discussion was held at the last meeting of the American Association of Obstetricians and Gynecologists, in which the history, clinical features, causation, pathology, diagnosis, prognosis and treatment of inflammatory disease of the uterus, its appendages and of the pelvic peritoneum were exhaustively considered. Some eight or nine referees took part in the discussion and these gentlemen were exceedingly well chosen, for they were fitted by experience and training to deal with the subject in a masterful manner.

This discussion was published in the *American Journal of Obstetrics* as well as in the transactions of the association, hence has become the property of the profession and is a most valuable contribution to the literature of gynecology—perhaps the most important one made in this country during the year 1894.

The frequency with which the diseases in question—acute or chronic, primary or secondary—are met, makes the subject one of absorbing interest to every practicing physician whose province is to deal with the pelvic organs of women. It is particularly important that the family doctor should be well versed in the clinical history and diagnosis of these affections in order that he may be prepared, either in person or by appropriate counsel, to make early application of rational and effective treatment. It is, moreover, of paramount importance that he shall not be misled by the dangerous doctrines that have been lately preached under the disguise of the misapplication of the term conservatism.

In reading this discussion we have become particularly impressed with the clearness and forcefulness of the arguments made on that point. There has sprung up, of late, an attempt on the part of a few men, who heretofore have been regarded in a

certain sense as leaders, to decry the surgical treatment of these affections and to prove that they can be cured by tentative measures, such as can be applied during a long residence in a private hospital. These, of course, include rest, massage, electricity, diet and almost every known luxury that a proud purse can provide. It is not to be contended that these remedies have not a place in certain well-chosen cases and in appropriate environment; but it cannot be affirmed with any approach to truthfulness that they are to be employed for the cure of pus-laden tubes, cystic ovaries or in cases where the pelvic tissues, through neglect or otherwise, have become matted together until their anatomical outlines are no longer to be mapped out.

The debaters in the discussion above referred to have, in several instances, paid their respects to this dangerous teaching in unmistakable terms, and we believe the effect of their arguments will go far towards checking the false position into which many good men were being betrayed. At all events we have observed that the medical journals throughout the country have ceased to echo these taking, but dangerous, arguments. The principles enunciated by experienced surgeons, who have derived their knowledge from long-suffering effort at the operating table, and who are able to point with satisfaction to a long record of cures are, after all and in the long run, more convincing than the pretty vagaries of the theorist.

When pus has ravaged a woman's pelvis until her organs are no longer anatomically recognizable or physiologically useful, it stands to reason that the best way to cure such a patient is through the prompt application of the best known surgical principles; and this is about the sum and substance of the whole matter. It is, at all events, the conclusion that thinking and observing physicians will reach, after listening to all the arguments and observing the results that the opposing methods bring.

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THE Kansas medical practice bill was defeated chiefly through the influence of the populists. In the house, according to the *Kansas Medical Journal*, Mr. Winters, a populist member, said: "We Western people can't support your plug-hat doctors. We've got a lot of old women who are better than any of them." And this is the kind of argument that prevails against reform in medical education beyond the Mississippi! Time, however, will set this question right. "Time and I," said Mazarin, "against any other two."

## TOPICS OF THE MONTH.

The Buffalo General Hospital has received the munificent gift of $55,000, which is to be applied in the building of a new structure. This royal donation was made by four of Buffalo's most philanthropic women. Mrs. George B. Gates contributed $40,000 of the amount, and her three daughters—namely, Mrs. William Hamlin, Mrs. Charles W. Pardee and Miss Elizabeth Gates, each added $5,000 to the sum.

There is much cause for congratulation in this splendid liberality of these sterling women. In the first place Buffalo has great need of improved hospital accommodations. At present there is no adequate structure for the reception of patients that may be properly classed as general in character. Buffalo is rapidly increasing in population, and its hospitals should keep pace with the progress of events.

It is understood that a new general hospital has been contemplated for some time. The gift of Mrs. Gates and her daughters will make a substantial beginning in the erection of an appropriate building. Buffalo deserves a charity of this kind that ought to cost $1,000,000. Who of Buffalo's philanthropic citizens will supplement the Gates' fund, increasing it to the amount named? The princely gift of these charitable women ought to bring the blush of shame to some of our wealthy citizens, and stimulate them to prompt action in swelling the fund to an amount that would put in immediate process of construction a building such as the picture we present, indicates.

It is stated that action will be taken at once looking to the erection of one wing of the new structure in accordance with plans drawn by Mr. George Cary, architect, of this city. The plan contemplates the erection of a quadrangular group of buildings as exhibited in the illustration, which shows the High-street elevation.

Mrs. Gates, principal donor of the fund mentioned, is now eighty years old. She takes an active interest in the prosperity of Buffalo, and especially in charitable work, and we hope that she and her three daughters may be spared many years to witness and enjoy the fruition of their princely charitable enterprise.

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Though our contemporaries, in a number of instances, refer to the "New York State Medical Society," we beg to inform them that

THE BUFFALO GENERAL HOSPITAL.

From THE ILLUSTRATED BUFFALO EXPRESS.

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there is no such organization. There is a New York State Medical Association, which was organized a few years ago and has its headquarters in the city of New York; but the "Medical Society of the State of New York" is the official designation of a body organized in 1806 and that holds its annual meetings at Albany. Heretofore it has met on the first Tuesday of February, but at its last meeting it decided to hold its next one on the last Tuesday of January, 1896.

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A BILL has been introduced into the legislature, says the *Medical Record*, that threatens the Craig Colony for Epileptics with disruption. Mr. Otto Kelsey, the member from Livingston county, in which the colony is located, is the reputed author of the bill. It is proposed to remove the present managers and appoint twelve others in their places selected on a different plan. The Rochester newspapers are opposing the bill with considerable vehemence and we think with much propriety. The committee of legislation of the Medical Society of the State of New York could here find a field for good work.

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IN THESE days, when the trend of medical opinion is everywhere in favor of improved methods of medical education; and especially when it favors advances in preliminary education, lengthened terms in medical colleges and separate examination by the state, it would be difficult to persuade us that any medical journal would be found in opposition to these principles. Listen, however, to the following echoes from the *North American Medical Review* (Kansas City), February, 1895:

All physicians interested in teaching medicine and elevating the standard of medical education through the colleges, *should discourage* the further establishment of medical examining boards. These boards are not constituted from the brainy element of the profession, but from medical politicians with a pull; and to transfer the licensing power to them is to take away a time-honored prerogative from the colleges and transfer it to politicians, or placing politics versus science.

The medical practice act of the State of Tennessee has been declared unconstitutional by Judge Anderson of the Supreme Court of that State, *as it tended to prohibit physicians from advertising.* Under this decision the medical practice act of Missouri and other states could be declared null and void.

These paragraphs would seem more appropriate if written a century ago, but even then they would have been very much out of place

A HITHERTO unknown constituent of atmospheric air has been discovered, to which the name "argon" has been given. Two members of the Royal Society of London, Dr. Ramsay and Lord Rayleigh, are credited with this remarkable and we hope useful discovery. Chemists have long ago told us that hydrogen obtained from chemical compounds differs from hydrogen obtained from the air, the former being lighter than the latter. This difference is not due to impurities, but to the presence in the air of some substance greater in density than hydrogen. The density of argon is stated to be about 20; that it is two and a half times more soluble in water than is nitrogen; that its special characteristic is inertness, and that all attempts to induce its chemical combination with other bodies thus far have failed. An opportunity seems to be presented for original investigation in regard to this somewhat mysterious substance, but one that promises great usefulness.

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DURING the past week, says the *Boston Medical and Surgical Journal* of March 21, 1895, a students' examination was held by the regents of the university at Albany for such first-year students of medicine as had not been graduated from a registered college, or satisfactorly completed not less than a three years' course in a registered academy or high school. The studies comprised in the examination are: arithmetic, elementary English, geography, spelling, United States history, English composition and physics. During the examination referred to, it was discovered that two of the applicants had appeared under assumed names; one representing a student of Bellevue Hospital Medical College and the other a student of the College of Physicians and Surgeons. It is said that those concerned in the fraud will be black-listed in all the medical colleges of the state, and that perhaps they may be prosecuted criminally by the Medical Society of the County of New York. The wisdom of placing the control of medical education and practice in the hands of the regents thus again is demonstrated.

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THE JOURNAL has observed a tendency on the part of a number of its contemporaries to borrow its paragraphs in whole or in part, in idea or substance, without due credit. This is a journalistic courtesy which we always accord and which we claim in return as just and reciprocal. We are only too glad to find that our efforts are appreciated and our work appropriated, but we would like to

have a recognition of the same, and, most of all, a maintenance of the ordinary amenities of good journalism.

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THE JOURNAL always takes pleasure in recording inventions that tend to improve schoolhouse sanitation. A novel application of flexible doors has been devised by an inventor in Worcester, Mass., to economize floor areas in the construction of school and other public buildings which, at the same time, provides sanitation and security to clothing at a minimum of cost. The cut on the opposite page shows a school wardrobe, thirteen feet wide and two feet deep, placed against the wall in the hallway, that will provide clothing accommodation for forty or fifty pupils. The hooks, umbrella clips and pigeon-holes for overshoes are in plain view, arranged and numbered vertically in sets to accommodate pupils of all ages.

The flexible doors are constructed of wood moldings, connected by a series of concealed interlocking steel hinges running through their entire width, making them strong and durable. They are provided with good locks that afford security to clothing and valuables. Ventilation is secured in the side and end panels, which are provided with strong wire netting. At the top is an opening of sufficient area to connect with the nearest ventilating flue, thus providing for forced draft, which is desirable. Hot air from furnace or steam pipes may be introduced through a register to dry and warm the clothing during wet or cold weather, which every sanitarian will recognize as a desirable feature.

The doors are constructed so as to run smoothly, easily and without friction. These wardrobes have already been adopted in Brooklyn and other cities. Their cost is from $75.00 upward, according to size. Their comparative low price commends them to school authorities when, in the construction of buildings, the saving of floor areas is an item of importace materially decreasing the cost of construction. But, most of all, they are to be commended on account of their sanitary features.

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A JUST rebuke has been dealt the management of the New York Life Insurance Company by Dr. De Lancey Rochester, of Buffalo, the details of which appear in a letter published by Dr. Rochester in the *New York Medical Journal*, January 26, 1895.

The company referred to has sent out a circular to its medical examiners reducing their fee for examination from $5.00 to $3.00.

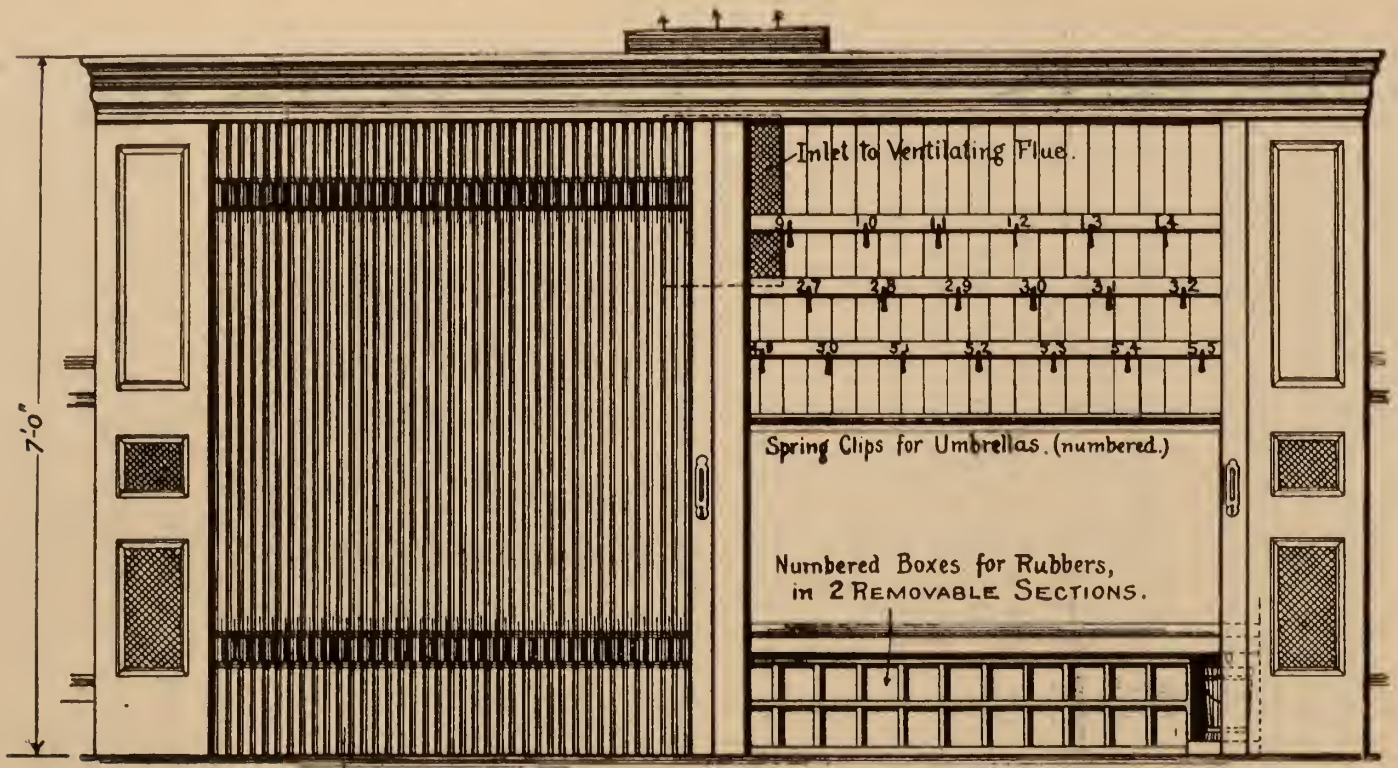


FIG. 1. FRONT ELEVATION.

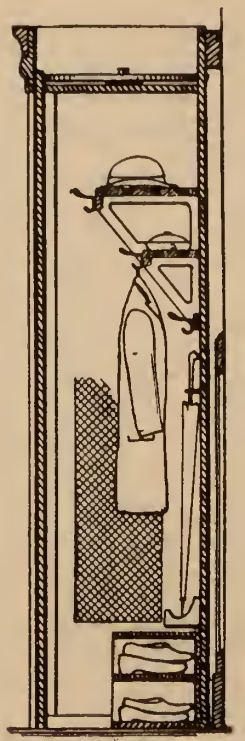

FIG. 3. SECTION AT A.

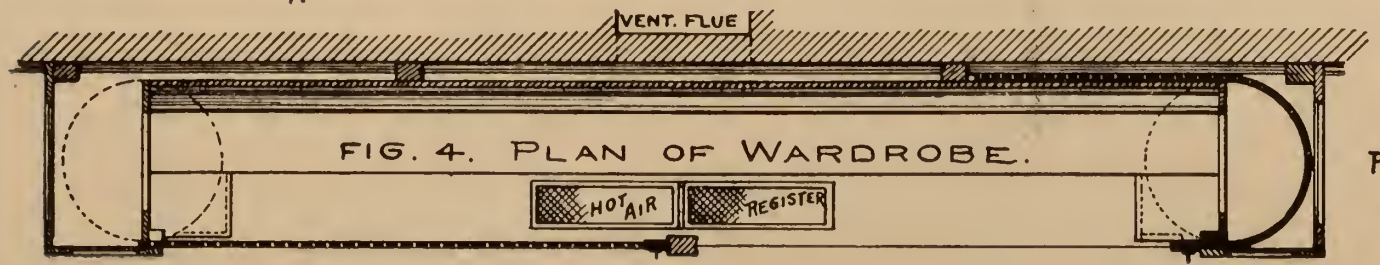


FIG. 4. PLAN OF WARDROBE.

FLEXIBLE DOOR AND SHUTTER CO.
Patentees and —
— Sole Manufacturers.
WORCESTER, MASS.
U.S.A.

SCHOOL WARDROBE.

The circular states that the company feels that it stands in the same relation toward its examiners that a patient does toward his physician; that, though the latter charges $5.00 for occasional visits he would not do so when the services extended over a long period of time; and that, in the latter case, it is customary for physicians to make considerable reductions in their bills from the fee for single visits. Continuing, the circular intimates that the examiner may accept the new arrangement or resign his place.

Dr. Rochester discusses the subject with much clearness and illustrates his argument by citing examples wherein the examiner saves insurance companies large sums of money. His communication to the *Journal* concludes with a letter that he sent to the company in reply to its impertinent circular, and as it explains not only his position but that of other examiners, we herewith publish it in full:

*New York Life Insurance Company, A. Huntington, M. D., Medical Director:*

DEAR DOCTOR: Permit me to announce my resignation as a medical examiner for the New York Life Insurance Company. At the same time permit me to say that I should think that you, as a medical man, would be ashamed to countenance any such letter as has just been sent out by Dr. Rogers, assistant medical director. You know perfectly well that no physician of any standing whatever would give, even to a member of one of his regular families, an examination such as is required by a life insurance company, for less than $10.00, and that examinations are made for insurance companies at the $5.00 rate because of the amount of business they are supposed to send to the examiner.

Long ago I tendered my resignation to your company because, as I said at the time, it was not worth my while to go to an applicant's office or house to examine him for less than $10.00, but that if the agent cared to bring one to my office *during office hours*, I would examine him at the $5.00 rate.

At that time you asked me, as a favor, to allow my name to remain among those of your examiners, and I did so. Now, however, the mere fact that the medical department should allow such a proposition as has just been made to receive its sanction renders it impossible that I should allow my name to remain any longer as one of its medical examiners.

DE LANCEY ROCHESTER, M. D.

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THE Cleveland Medical Society has unanimously defeated a proposition to make its constitution and by-laws conform to the code

of ethics as interpreted by the San Francisco meeting of the American Medical Association. The *Western Reserve Medical Journal*, distinguished for its high journalistic tone, makes some very pointed and able comments on this action of the Cleveland Medical Society. We wish we had space to print the entire editorial, which it closes with the following paragraphs:

In New York and elsewhere a number of societies have long since abandoned a code of ethics as an unnecessary relic of the past, but we believe that to the Cleveland Medical Society belongs the honor of being the first society to vote to admit reputable practitioners of all stripes to membership. It is not a little significant that the first society to take this step should be one organized something over two years ago by young men, which has grown more rapidly, which had a larger average attendance at its meetings than any other society in the country and which is really the most flourishing medical society in the United States. While this long forward step may very likely be followed by reaction in some quarters, there is no reason to doubt that it is merely the first of a number of similar steps by other medical societies, or that finally the whole profession will follow in the lead of the Cleveland physicians.

We extract some of the details of the meeting, as published in the *Western Reserve Medical Journal*, by which it will be seen that Dr. X. C. Scott, a member of the judicial council of the American Medical Association, arrays himself on the side of progression:

The following resolution was then introduced by Dr. X. C. Scott:

WHEREAS, The constitution and by-laws of the Cleveland Medical Society provide that any legal medical practitioner is eligible to membership in said society; and

WHEREAS, At the last meeting the amendment which was proposed to make the constitution and by-laws of said Cleveland Medical Society to conform to the constitution, by-laws and code of ethics of the American Medical Association was rejected and laid on the table—

*Resolved*, That the active membership of said Cleveland Medical Society shall be open to any legal practitioner of this city, no distinction being made in regard to the school of medicine to which said legal practitioner may belong.

The adoption of the resolution was moved by Dr. P. Maxwell Foshay and seconded by Dr. Henry S. Upson. Dr. Foshay welcomed Dr. Scott to the ranks of the liberals and read an extract from the proceedings of the Mississippi Valley Medical Association, showing similar liberal stand taken by that body under Dr. Scott's presidency. The president, Dr. William E. Wirt, said the resolution was in conflict with the present constitution, which permitted only "regular" physicians to

become members. He said the society must first place a construction upon the word "regular" before the resolution could be voted upon. Dr. R. M. Woodward said the United States surgeon-general had construed the word to mean "physician" in the usually accepted meaning of that term, without respect to creed or code. Dr. Upson moved that the society construe the word "regular" as any legally qualified practitioner of medicine, and the motion was adopted. Dr. O. T. Thomas thought that in view of this construction of the word "regular" the adoption of the resolution would be useless and moved that it be tabled. The original resolution was then put and carried with only one negative vote. The society then adjourned.

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Following close upon the electric street car ambulance, recently put into commission by the St. Louis health department, comes the announcement that the Savannah, Florida & Western railway has adopted a new hospital car, recently described and illustrated in the *Columbus Medical Journal.* The car has a wide door at the side for the admission of patients, is provided with a properly equipped operating room and possesses ample accommodations for the reception and care of the injured. Commenting on this subject the *Chicago Medical Recorder* says that this road is the first to equip and put into service a hospital car. This ought to bring chagrin to our Northern railways, some of which ought to be leaders in everything that improves the transportation of sick or injured employes or travelers. To Dr. F. H. Caldwell, surgeon in chief of the railroad referred to, is due the credit, we believe, of taking the initiative in bringing about this reform in the humane, prompt and efficient transportation and care of sick and injured railway unfortunates.

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We conclude in this number the report of the eighth periodical International Ophthalmological Congress, which has been running through several numbers of the Journal and was prepared by Dr. A. A. Hubbell, of Buffalo, from notes made at the Congress. This is, without doubt, the most complete report of any special medical congress held abroad, published in an American journal, and is attracting the attention of ophthalmologists throughout the country. It is being republished in the *Ophthalmic Record*, Nashville, Tenn.

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The Journal takes pleasure in introducing to its readers two additional members of its editorial staff. Dr. Ernest Wende,

clinical professor of dermatology in Buffalo University Medical College and health commissioner of Buffalo, is well known to the profession in this region. So, also, is Dr. A. A. Hubbell, professor of diseases of the eye and ear in Niagara University Medical College. These gentlemen have frequently contributed to our columns, and, we doubt not, this augmentation will increase the efficiency of the JOURNAL as well as be most acceptable to our subscribers.

## Personal.

DR. CHARLES A. L. REED, of Cincinnati, announces the removal, during March (1895), of his private hospital for abdominal and pelvic surgery from 487 West Sixth street to his recently acquired property in St. Leger place, Walnut hills. The situation is salubrious, quiet, high and possesses a commanding view, while the hospital itself fulfils all modern requirements.—*Mississippi Medical Monthly.*

DR. W. N. WISHARD, of Indianapolis, president of the Mississippi Valley medical association, recently visited Buffalo on business connected with the affairs of the association, which holds its next meeting in Detroit, beginning the first Tuesday of Sepember, 1895.

Dr. Wishard has gone east and will spend a few days in New York and Philadelphia before his return home.

DR. H. W. QUIRK, of Cleveland, O., says the *Cleveland Medical Gazette*, has returned from Europe, whither he has been for observation and study during the past several months.

DR. BERNARD BARTOW, of Buffalo, has removed from 220 Franklin street to 481 Delaware avenue, where the practice of his specialty, orthopedic surgery, will be continued.

DR. EDWARD CLARK, of Buffalo, has removed from 271 Franklin street to 378 Franklin street, where he will continue the practice of his specialty, diseases of the rectum.

DR. JULIUS POHLMAN, of Buffalo, has removed his office from 367 to 382 Franklin street. He is located in the Cutler building, between Tupper and Edward streets, where he will still devote himself to the practice of ophthalmology.

## Obituary.

Dr. Dujardin-Beaumetz, editor-in-chief of the *Bulletin Général de Thérapeutique*, died in Paris, February 16, 1895. His death was somewhat sudden and he left much literary work uncompleted. He has often been quoted as authority on therapeutic subjects. He was preparing an article on diseases of the muscles, for the *Twentieth Century Practice of Medicine*, now publishing by Messrs. Wm. Wood & Co.

Dr. Daniel Hack Tuke, the eminent alienist and author of works on mental disease, died in London, March 6, 1895, aged 68 years.

## Society Meetings.

The Association of Military Surgeons of the United States will hold its next annual meeting at Buffalo, May 21, 22, 23, 1895. Dr. Albert H. Briggs, Major and Surgeon N. G. S. N. Y., 267 Hudson street, Buffalo, N. Y., is chairman of the committee of arrangements. The following are

SOME OF THE SUBJECTS FOR DISCUSSION:

(1) The president's address, by Brigadier-General George M. Sternberg, Surg.-Gen., U. S. Army. (2) Report on the status of the National Guard, by Col. Nelson H. Henry, Asst. Surgeon-General, N. G. S. N. Y. (3) Experiments illustrating the degree of powder burn as modified by the distance of the object, size and conformation of the bore, amount and standard of the powder and other practical demonstrable causes, by Louis A. La Garde, Captain and Assistant Surgeon, U. S. Army. (4) The location and removal of missiles from the cranial cavity, by George R. Fowler, Major and Surgeon, N. G. S. N. Y. (5) Discussion of the report of the committee on litter, by John Van R. Hoff, Major and Surgeon, U. S. Army, and E. T. T. Marsh, Major and Surgeon, 71st Regt., N. G. S. N. Y. (6) Ambulance construction, by Dallas Bache, Lieut.-Col., Deputy Surgeon-General, U. S. Army, and Charles R. Greenleaf, Lieut.-Col. Deputy Surgeon-General, U. S. Army. (7) Conservative surgery on the battlefield, by Nicholas Senn, Surgeon-General, N. G. S. Illinois. (8) The relation of concentrated food to active service demands, by Austin Flint, M. D., ex-Surgeon-Gen-

eral, N. G. S. N. Y. (9) The situation of sites for and the construction of military posts in relation to proper sanitation, by Dallas Bache, Lieut.-Col. Deputy Surgeon-General, U. S. Army. (10) The relation of naval architecture to proper sanitation, by J. R. Tryon, Surgeon-General, U. S. Navy. (11) On the value of bromine in military surgery, by M. O. Terry, Surgeon-General, State of New York. (12) The handling and care of wounded on shipboard, by A. C. H. Russell, Passed Assistant Surgeon, U. S. Navy; E. R. Stitt, Passed Assistant Surgeon, U. S. Navy, and A. M. D. McCormick, Passed Assistant Surgeon, U. S. Navy. (13) The post exchange from a medical standpoint, by Philip F. Harvey, Major and Surgeon, U. S. Army. (14) Infected bullets, by Louis A. La Garde, Captain and Assistant Surgeon, U. S. Army. (15) Instruction of the hospital corps, by H. S. Turrill, Major and Surgeon, U. S. Army. (16) Fifty-two amputations of the thigh, by John D. McGill, Surgeon-General, N. G. S. N. J. (17) Upon the Surgeons-General of the militia, by George Cook, Ex-Surgeon-General, N. G. S. N. H. (18) Field hospital service, by Dallas Bache, Lieutenant-Colonel Deputy Surgeon-General, U. S. Army. (19) Some experimental work with the new ball, by J. D. Griffith, Ex-Surgeon-General, N. G. S. Mo. (20) Gunshot wound of the Kidneys, by Lieutenant-Colonel A. L. Wright, N. G. S. Iowa. (21) On the Travois litter, by Wladimir F. de Niedman, Major and Surgeon, N. G. S. Kans. (22) Details regarding the medical service of the National Guard of the State of New York during the Buffalo strike of 1892, by Louis Balch, Major and Surgeon, N. G. S. N. Y. (23) Details regarding the Medical Service of the National Guard of the State of New York during the recent Brooklyn strike, by Wm. E. Spencer, Major and Surgeon, N. G. S. N. Y. (24) Details regarding the medical service of the National Guard of the State of Illinois during the recent Chicago strike, by Charles Adams, Major and Surgeon, N. G. S. Ills. (25) Method of caring for wounded in field and hospital of Chinese and Japanese armies, by C. U. Gravatt, Surgeon, U. S. Navy. (26.) A consideration of scorbutic manifestations in young subjects, by John C. Wise, Surgeon, U. S. Navy. (27) Asepsis in military service, by Eduard Boeckmann, Asst. Surg.-General, N. G. S. Minn. (28) A medical officer in the volunteer army, by F. W. Byers, Surgeon-General, N. G. S. Wis. (29) The Merriam Pack, by Dr. LewisBalch, Major and Surgeon, N. G. S. N. Y. (30) Measures for the prevention and suppression of dangerous contagious diseases in garrison and in the field, by

H. Lincoln Chase, Lieut. and Asst. Surgeon, Fifth Inf., Mass. Vol. Militia. (31) The effects and treatment of heat and sun-strokes at camps of instruction, by Orlando J. Brown, Lieut. and Asst. Surgeon, Second Inf., Mass. Vol. Militia. (32) The mental evolution of the citizen soldier, by Charles W. Calloupe, Asst. Surgeon, Battery A, Mass. Vol. Militia.

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The American Medical Publishers' Association will hold its next annual meeting at Baltimore, May 6, 1895, convening in the parlors of the Eutaw House at 9.30 A. M. Dr. Landon B. Edwards, editor and publisher of the *Virginia Medical Monthly*, is president of the association, and under his direction an interesting program is preparing. All who wish to read papers should furnish the titles to Charles Wood Fassett, secretary, St. Joseph, Mo., at an early day.

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The Tri-State medical society of Iowa, Illinois and Missouri will hold its next meeting in St. Louis, April 2, 3, 4, 1895, under the presidency of Dr. James Moores Ball, of that city. The headquarters of the society will be at the Planters' hotel and the sessions will be held in the ladies' ordinary. An elaborate program has been prepared, a reduction of hotel and railway rates secured and a banquet will be given on the evening of April 3d.

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# Book Reviews.

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Bureau of Education. Contributions to American Educational History. Edited by Herbert B. Adams. No. 14, the History of Education in Connecticut by Bernard C. Steiner, A. M. (Yale), Instructor in History and Ph. D., Johns Hopkins University, Librarian of the Enoch Pratt Free Library of Baltimore City. Washington: Government Printing Office. 1893.

Report No. 14, prepared by the National Bureau of Education, is a review of the history of the higher institutions of learning in Connecticut. It is largely occupied with a narrative of the beginnings in colonial days, and the later development of Yale university. Connecticut puritanism might have been narrow on some sides of its social and religious life, but its devotion to higher learning, its sacrifices to found and maintain educational institutions have given to the state a wholesome broadness, and have placed its leading university in the foremost rank of the great universities of the world.

The original charter of Yale college was granted A. D. 1701, naming ten congregational clergymen trustees, of whom all but one were Harvard graduates. The location was left open, but New Haven finally won in 1718. Yale university was born in an intensely theologic age, and amid struggles of the colonies with poverty, and when the French and Indian wars were a serious embarrassment. Several men of letters in England interested themselves in the enterprise. Sir Richard Steele, Isaac Newton, Bishop Berkeley and others were contributors to its library. The college derived its name by a happy thought of one of its trustees.

Elihu Yale, the son of a Boston merchant, sought his fortune in India. He became governor of Madras and accumulated large wealth. He is said to have been "unscrupulous in conduct and of lax morality," but with redeeming qualities. It was suggested to him by Cotton Mather that he might give his name to the new college. The gift of £800 sterling was the response, and the Madras governor won an easy immortality. No graduate of Yale, of even twenty-five years ago, remembering its four plain dormitories and recitation rooms, notes its new and magnificent edifices for each of its departments, its army of students and professors, its advance in every department of literature and science, but feels an emotion of pride as he realizes the greatness and the renown of his Alma Mater.

The college had early in its history theologic controversies which threatened for a time its congregational control. The honorable part of the college during the period of the war of the revolution, and of our civil war through its students and officers, and the great part it has had in every department of professional, public and civic life, is dwelt upon at length in the report as well as its ever-widening development as a university.

A very interesting account follows of the founding of Trinity college, at Hartford, in 1824, under the auspices of the Episcopal church. As early as 1788, preliminary steps were taken to establish a college for the furtherance of the educational and religious interests of that church.

This is followed by an equally interesting sketch of the Wesleyan university, established in Middletown in 1831..

The Hartford Theological college grew out of the theological controversy in the '30's and '40's, between Professor Taylor, of the Yale divinity school, and Rev. Doctor Tyler, of East Windsor. This battle royal over theologic metaphysics, which, at the time, divided the Congregational church of Connecticut into two hostile camps, has passed into history, leaving neither victors nor vanquished. Honest and earnest as were these great polemics, they spent their forces over questions now superseded by the much larger interests and more practical questions which occupy the leaders and people of Christian churches.

The report closes with a notice of Berkley Divinity school in Middletown, founded in 1868. This admirable report presents

Connecticut in the forefront of the educational history of the country.

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DISEASES OF THE EAR. A Text-Book for Practitioners and Students of Medicine. By EDWARD BRADFORD DENCH, Ph. B., M. D., Professor of Diseases of the Ear in the Bellevue Hospital Medical College; Aural Surgeon, New York Eye and Ear Infirmary, etc., etc. Octavo, pp. xxii.—645. With eight colored plates and 152 illustrations in the text. Price, cloth, $5.00; leather, $6.00. New York: D. Appleton & Co. 1894.

The numerous works on the ear which have recently been published would convey the impression that there could be no demand for another new treatise. But it is only necessary to read the work of Dr. Dench to be convinced that it fulfils a purpose more completely than many others in presenting the latest information and the most advanced therapeutics in otology.

The work is divided into five sections, as follows:

I. The anatomy and physiology of the ear.
II. Diseases of the conducting apparatus.
III. Surgery of the conducting apparatus.
IV. Diseases of the perceptive mechanism.
V. Complicating aural affections.

In section I., a very excellent description is given of the anatomy and physiology, including the physical and functional examination of the ear. Especial emphasis is laid upon the importance of functional examination and the results of the most recent investigations are placed at the disposal of the reader in such a manner as to enable him to use them in diagnosis.

Section II. treats of diseases of the auricle, external auditory canal, diseases of the middle ear and diseases of the mastoid process. This section is the largest of the work and includes subjects of the greatest practical interest to the practitioner, among which we may mention catarrhal and purulent inflammations of the middle ear, mastoiditis and intra-cranial complications of tympanic inflammations. The author has availed himself here of the most reliable resources in diagnosis and lays down most trustworthy principles as to prognosis and treatment.

In the next section (Section III.) he considers surgical operations on the middle ear, mastoid process, and brain, and gives detailed and clear descriptions of myringotomy, myringectomy, division of the tensor tympani, anterior ligament of the malleus, intra-tympanic adhesions, excision of the ossicles, stapedectomy, Stacke's method of exposing the tympanic cavity and mastoid antrum, the later methods of opening the mastoid process, and the procedures by which to expose the lateral sinus, the brain in cerebral abscess, and the like. There is a fund of information, the most practical and recent, gathered into this section, of extreme value and which we believe is nowhere else to be found within the same space in the English language.

Section IV. contains an excellent presentation of internal-ear diseases and embodies many new facts that have not heretofore been collected.

Section V. reviews complicating aural affections and includes aural affections complicating the acute infectious diseases; those dependent upon chronic visceral conditions, such as nephritis, tuberculosis, leucemia, diabetes, gout, rheumatism, medicinal substances; disturbances dependent upon functional nervous diseases, such as neurasthenia and hysteria; reflex disturbances; deaf-mutism. It concludes with several chapters on diseases of the nose and naso-pharynx, briefly but very practically considered in their relation to affections of the ear.

This brief summary will give the reader but an insufficient idea of the scope and character of this work. It is both comprehensive and scholarly and represents the latest in otological thought and practice. It is well illustrated and is written in a most charming style. A. A. H.

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History of the Life of D. Hayes Agnew, M. D., LL. D. By J. Howe Adams, M. D. With fourteen full-page portraits and other illustrations. In one large royal octavo volume, 376 pages, extra cloth, beveled edges, $2.50 net; half-morocco, gilt top, $3.50 net. Sold only by subscription. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

Few men, in their day, have had more reverent and loving friends than Dr. Agnew. And any story of his life and work is always read with the keenest interest, for in the record one was certain to find the impress of a truly great character. Some of the simplest incidents in his life were most illustrative of the man. So this work of Dr. Adams will find many appreciative readers, who cannot fail to know Dr. Agnew the better for having read it. The book is written according to the author's conception of what Dr. Agnew would have dictated. He expresses his idea of what a biographer should be and do in the following words:

> A biographer, in preparing the life of his hero, loves to dwell chiefly on those efforts and achievements which have attracted public admiration—on those master-strokes in the life of his subject which have raised him above the level of his fellow-men—leaving out those lesser characteristics which not only serve to consolidate the character and lead to success, but which, from their multiform points in which they come in contact with common humanity, confer a personal interest in the life.

In this spirit the writer has told us of the ancestry of Dr. Agnew, of his early struggles in medicine and business, of his career as a practitioner, teacher and author, of home life and final days. While the method employed by Dr. Adams has many commendable features and distinct advantages in giving us an intimate knowledge of the character delineated, it has also the danger of prolixity and of injudicious minuteness of detail, and this danger,

it must be confessed, Dr. Adams has not always foreseen and avoided. To say, for instance, that Dr. Agnew smoked the very best brand of cigars and cigarettes, to tell what he ate for breakfast, to state that his ice house was filled each winter with a particularly pure ice sent by a patient, and the like, seems to detract from the dignity of the record of a life so full of great thoughts and deeds. Notwithstanding such blemishes the book is a good one, because written by one who *knew* his hero. In this story, simply told as it is, there is much that is new, but always characteristic of that remarkable man to whom the medical profession will ever owe a debt of gratitude. J. P.

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The Johns Hopkins Hospital Reports. Volume IV., Nos. 4 and 5. Report in Neurology II. Baltimore: The Johns Hopkins Press. 1894.

This report is devoted entirely to careful scientific investigations of Professor Henry J. Berkley in the field of neurology, and shows an immense amount of research and scientific thought. It is, perhaps, as good an index as can be given of the excellent original work done in the Johns Hopkins laboratories, and does not suffer in comparison with that done in the best European laboratories.

The first article is devoted to the study of dementia paralytica in the negro race, with report of five cases coming under the personal observation of the author. These cases were carefully examined on the post-mortem table, and in two of them a most careful microscopical examination was made of the tissues of the brain and cord.

The remarkably low percentage of paresis among the colored people is dwelt upon, and another important fact is the absence of syphilis in these cases, also the absence of alcoholism. The author rather believes that the cause of paresis is due to the altered condition of the race from a life of comparative freedom to the one for the struggle of individual existence.

The most characteristic symptom for the disease in the negro is the extreme rapidity of mental enfeeblement. Pathologically, the author believes that the beginning of the disease is to be found in some alteration of the blood supply, followed by a peri-arterial lymphoid growth, disturbance of the lymph currents, malnutrition, degenerative changes, atrophy of the nerve elements and overgrowth of the spider cells. The author does not believe that paresis is due to a diffuse interstitial cortical encephalitis, in which the connective tissue elements are primarily affected, nor that it is a diffuse parenchymatous inflammation which commences in the nerve elements and involves, secondarily, the neuroglia structures.

The succeeding articles are devoted to a study of the intrinsic nerves of the liver, including the gall capillaries of the rabbit's liver; the privascular cells of the rabbit's liver; the intrinsic pul-

monary nerves in mammalia; the intrinsic nerve supply of the cardiac ventricles in certain vertebrates; the intrinsic nerves of the sub-maxillary gland of the rat; the intrinsic nerves of the thyroid gland of the dog; and the nerve elements of the pituitary gland. These papers are all accompanied by beautiful plates, showing the course and distribution of the nerve fibrils and their termination in the special tissues. A review of these labors would necessarily be too exhaustive for the JOURNAL, and the reader interested in these subjects must be referred to the original reports.

W. C. K.

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PRACTICAL URINALYSIS AND URINARY DIAGNOSIS: A Manual for the Use of Physicians, Surgeons and Students. By CHARLES W. PURDY, M. D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urinology and Urinary Diagnosis at the Chicago Post-Graduate Medical School; Author of Bright's Disease and Allied Affections of the Kidneys; also of Diabetes: Its Causes, Symptoms and Treatment. With numerous illustrations, including photo-engravings and colored plates. In one crown 8vo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., 1914 and 1916 Cherry street. 1894.

The importance of a knowledge of the subjects treated of in this book cannot be over-estimated. The subtle beginning of most diseases of the kidneys is a serious bar to their intelligent early treatment. The kidney deserves to be more universally, and, we might add, more thoroughly studied. It is a great eliminator of the ashes of combustion, and when its offices are imperfectly performed, the economy suffers in many and divers ways.

The analysis of urine is considered in Part I. of this work, which comprises the first 228 pages. Physiological chemistry, as applied to this subject, is dealt with in much detail. This is especially true with reference to the sections devoted to the consideration of the abnormal constituents of the urine.

Part II. is devoted to urinary diagnosis, with which subject every physician should become familiar. An appendix is added to the book, which treats of the examination of urine for life insurance. Every examiner should familiarize himself with this important branch of the subject Life insurance companies might, with great propriety, reprint this section and distribute it among their examiners. A good index closes this well-printed, interesting and valuable treatise, which we commend as one of the best of its kind.

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FOURTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. In two volumes and accompanying maps. Transmitted to the Legislature February 15, 1894. Albany: James B. Lyon, State Printer. 1894.

These volumes constitute a valuable record of the official transactions of the state board of health, its subordinates and auxiliaries for the year 1893. Probably one of the most interesting

subjects dealt with is that of tuberculosis in cattle. The growing importance of this question and the bearing it has upon the health of the community renders it essential that the state board of health shall be clothed with ample power to deal summarily with tuberculous animals, singly or in herds, without recourse. All such animals should be slaughtered and cremated at the expense of the owners. This is the least possible punishment that the state can inflict upon an owner of such dangerously diseased cattle. It might be as well understood first as last that the propagation of consumption through animal food is a serious matter, and whoever becomes a party to this method of spreading infectious disease must be made to suffer, at least, the condemnation and destruction of the diseased animals. The second volume of this report is devoted to this subject and experiments with tuberculin are carefully recorded.

The board of health appears to be pursuing its investigations with caution on scientific lines.

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Differential Diagnosis and Treatment of Diseases of the Eye. By A. E. Adams, M. D., Instructor in Diseases of the Eye in the Post-Graduate Medical College; Assistant Surgeon to Manhattan Eye and Ear Hospital, New York; Ophthalmic Surgeon to St. Luke's Hospital, and Consulting Ophthalmologist to the Home of the Friendless, Newburgh; Fellow of the New York Academy of Medicine, etc., etc. Duodecimo, pp. 94. Price, $1.00. New York: G. P. Putnam's Sons. 1894.

This little work is made up of tables of symptoms and indications of treatment of diseases of the eye. "They are designed more especially for the active practitioner who does not claim to be an ophthalmologist or even well posted on diseases of the eye" (Preface).

We fear that, instead of serving the purpose intended, these tables will only lead to confusion and uncertainty in diagnosis and treatment. A. A. H.

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Text-Book of Medical and Pharmaceutical Chemistry. By Elias H. Bartley, B. L., M. D., Professor of Chemistry and Toxicology in Long Island College Hospital; Dean and Professor of Organic Chemistry in the Brooklyn College of Pharmacy, etc., etc. Third edition, revised and enlarged with eighty-four illustrations. Small 8vo, pp. xiv.—684. Price, $3.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1894.

This edition is considerably larger than the second edition, which was reviewed in the Journal some time since.

The description of a large number of synthetical compounds, some new tables of analytical tests, and a chapter on physiological and clinical chemistry have very materially improved the work.

The typography, plates and general make-up of this edition is excellent. J. A. M.

ATTFIELD'S CHEMISTRY. Fourteenth edition. Chemistry: General, Medical and Pharmaceutical; including the Chemistry of the U. S. Pharmacopeia. A Manual of the General Principles of the Science and their Application to Medicine and Pharmacy. By JOHN ATTFIELD, M. A., Ph. D., F. I. C., F. C. S., F. R. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Fourteenth edition, specially revised by the author for America to accord with the new U. S. Pharmacopeia. In one handsome royal 12mo volume of 794 pages, with eighty-eight illustrations. Cloth, $2.75; leather, $3.25. Philadelphia: Lea Brothers & Co. 1894.

Attfield's Chemistry has been too long before the profession to need a special introduction or an extended resumé of its merits.

This edition, the fourteenth, is revised in accordance with the scheme of the new United States Pharmacopeia, and is printed concurrently with the fifteenth British edition.

The revision is thorough; new processes are added, faulty and obsolete ones are dropped. The same thoroughness which characterized the previous editions is amplified in the present one.

It is safe to say that the new edition will establish Attfield's Chemistry in the high place it occupies in the estimation of the profession, more firmly than ever. J. A. M.

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SYLLABUS OF GYNECOLOGY, based on the American Text-Book of Gynecology. By J. W. LONG, M. D., Richmond, Professor of Gynecology and Pediatrics in the Medical College of Virginia; Gynecologist to the Hospital of the Medical College of Virginia; Consulting Gynecologist to the Richmond City Dispensary, etc., etc. Price, $1.00 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

The author asserts that he has written this syllabus with a three-fold object: first, to be used as lecture notes; second, to enable the student more intelligently to follow and remember lectures; and, third, as a convenient reference for practitioners of medicine. The book is to be commended from the three points of view named. Dr. Long is an able teacher, an acute observer and a logical reasoner. He has produced in this work the most comprehensive syllabus of gynecology yet brought to our notice. We observe that he makes use of the word celiotomy, though, to his credit, in a limited degree. We have expressed our opinion on this subject heretofore, hence need not repeat our criticism of the term at this time. It is such bad form, however, that we cannot refrain from an allusion to its use in so good a book as this. We hope to see the term expunged in future editions.

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## BOOKS RECEIVED.

Manual of Chemistry. A Guide to Lectures and Laboratory work for Beginners in Chemistry. A Text-book specially adapted for Students of Pharmacy and Medicine. By W. W. Simon, Ph. D., M. D., Professor of Chemistry and Toxicology, College of Physicians and Sur-

geons, Baltimore; Professor of Chemistry in the Maryland College of Pharmacy. New (fifth) edition. In one octavo volume of 502 pages, with forty-four engravings and eight colored plates illustrating sixty-four of the most important chemical tests. Cloth, $3.25. Philadelphia: Lea Brothers & Co. 1895.

Transactions of the Medical Society of the State of North Carolina. Forty-first annual meeting, held at Greensboro, N. C., May 15, 16, 17, 1894. Wilmington, N. C.: Jackson & Bell. 1894.

A Manual of Bandaging. Adapted for Self-Instruction. By C. Henri Leonard, A. M., M. D., Professor of the Medical and Surgical Diseases of Women, and Clinical Gynecology in the Detroit College of Medicine. Sixth edition, with 139 engravings. Cloth, 8vo, 189 pages. Price, $1.50. Detroit, Mich.: The Illustrated Medical Journal Co., Publishers.

Suggestions to Hospital and Asylum Visitors. By John S. Billings, M. D., Director of the Hospital of the University of Pennsylvania, and Henry M. Hurd, M. D., Superintendent of the Johns Hopkins Hospital. With an introduction by S. Weir Mitchell, M. D. Price, 50 cents. Philadelphia: J. B. Lippincott Co. 1895.

The Physicians' Vade Mecum. Being a Hand-book of Medical and Surgical Reference, with other Useful Information and Tables. By Sebastian J. Wimmer, M. A., M. D., Author of Tables and Notes on Human Osteology, etc. With additions by Frank S. Parsons, M. D. Price, $1.00. Philadelphia: The Medical Publishing Co. 1894.

Suggestive Therapeutics in Psychopathia Sexualis, with Especial Reference to Contrary Sexual Instinct. By Dr. A. von Schrenck-Notzing (Munich, Germany). Authorized translation from the German, by Charles Gilbert Chaddock, M. D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine, St. Louis; Member of the American Medico-Psychological Association; Attending Neurologist to the Rebekah Hospital, St. Louis, Mo., etc., etc. One volume royal 8vo, 325 pages. Extra cloth, $2.50 net; sheep, $3.50 net. Sold only by subscription to the medical profession exclusively. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

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## Correspondence.

### THE CHARCOT MONUMENT FUND.

BUFFALO, March 25, 1895.

*To the Editor of the Buffalo Medical Journal:*

SIR—The following is a statement of the contributions received to date to the Charcot monument fund:

BUFFALO.

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| Dr. Wm. C. Krauss | $5.00 |
| Dr. Chas. S. Jones | 5.00 |
| Dr. James W. Putnum | 5.00 |

New York City, $290 ; Philadelphia, $150 ; Baltimore, $50 ; Pittsburg, $58 ; Montreal, $19 ; Boston, $35 ; Denver, $10 ; St. Louis, $10 ; Chicago, $5 ; total, $642.

It is requested that persons living in Buffalo and vicinity who wish to add to the fund, send their contributions to the undersigned without delay.

JAMES WRIGHT PUTNAM, M. D.,
388 Franklin street,
*Member of the Committee from Buffalo.*

## Literary Notes and Miscellany.

THE *American Lancet*, in its March issue, 1895, announces its discontinuance. Dr. Leartus Connor, who has been conducting editorial work for the past twenty-four years, much of the time as editor of the *Lancet*, has resigned, hence the publisher, Mr. Geo. S. Davis, suspends its publication.

There are too many medical journals, to be sure, but there are many that we could afford to give up before the *American Lancet*. It was a dignified journal, conducted by an able editor and we shall be sorry to miss it from our exchange list.

MESSRS. SCHULZE-BERGE & KOECHL, 79 Murray street, New York, announce that on and after April 1st they will again reduce the price of diphtheria antitoxin Behring, as follows:

| | | | |
|---|---|---|---|
| No. 0, yellow label, | 200 | antitoxin units | $ .60 |
| No. 1, green label, | 600 | " " | 1.50 |
| No. 2, white label, | 1,000 | " " | 2.75 |
| No. 3, red label, | 1,500 | " " | 3.75 |

Supplied direct upon receipt of price.

THE oldest medical publications in the United States, in the order named, are thus given by the *New Orleans Medical and Surgical Journal:* The *Boston Medical and Surgical Journal*, the *American Journal of Medical Sciences*, the *Cincinnati Lancet-Clinic*, the *St. Louis Medical and Surgical Journal* and the *New Orleans Medical and Surgical Journal.*

The first number of the BUFFALO MEDICAL JOURNAL was published in 1845, under the editorship of Dr. Austin Flint. This JOURNAL will, therefore, be fifty years old in June. We presume, if the computation of our New Orleans contemporary is correct, we are entitled to the sixth place in chronological order.

Messrs. Wm. R. Warner & Co. have recently issued a therapeutic ready reference book for physicians, seventh edition, which is a valuable aid in the preparation of prescriptions and gives many useful hints on the subject of prescription writing. It will be sent to any subscriber of the Journal who will remit 15 cents to the publishers, 1228 Market street, Philadelphia.

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The Medical Novelty Co., 21 West Twenty-third street, New York, has sent us a copy of their physicians' pocket day-book and visiting list. This book is both convenient and useful for every physician. There is a large demand for them and they will be supplied free throughout the year to any one of our subscribers who will send their names to the above address, mentioning the Journal.

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The *Southern California Practitioner* appeared in January, 1895, in a new dress, which gives it an improved appearance. Its pages are full of interesting reading matter.

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Annales d'Oculistique.—It will be gratifying to the profession, particularly the ophthalmological branch of it, to learn that the *Annales d' Oculistique*, the oldest and one of the best ophthalmic periodicals in existence, is hereafter to be published simultaneously and uniformly each month in the French and English languages. This plan of publication began with January, 1895, and the English edition is brought out at $5 a year. Each number contains sixty-four to eighty pages, forming annually two volumes of about 1,000 pages.

This periodical was founded in 1838 by Cunier, and was a pioneer in this department of medical journalism. From the beginning its fame and influence has extended, and through the wise direction of its founder, and later of Warlomont and now of Valude, it has been a leader in ophthalmological thought and has held a foremost rank in all countries where ophthalmology has been studied. It is distinguished for its dignity, independence and enterprise and in offering a complete record of this branch of medical science. It is the wish of the management to make the journal in every respect an international medium of communication between ophthalmic practitioners. In future issues original communications from American and English writers will constitute a much more prominent feature than in the past.

This new enterprise will be most welcome and it will, without any doubt, receive that generous support which it deserves. H.

Buffalo Medical and Surgical Journal

Vol. XXXIV. MAY, 1895. No. 10.

# Original Communications.

## NASAL STENOSIS.[1]

By S. MITCHELL, M. D., Hornellsville, N. Y.

Oculist and Aurist to St. James's Mercy Hospital; Oculist to the N. Y., L. E. & W. R. R.

Nasal stenosis is an affection that the busy practitioner is almost daily called upon to treat and yet one that yields very unsatisfactory results, as ordinarily treated. Most of these cases come for treatment with the diagnosis of "catarrh" already made for us and with the history of having used Nely's Cream Balm, Page's Catarrh Remedy, Hayne's Monarch Catarrh Cure and a dozen other remedies that are so eloquently advertised in all the papers, with the standing offer of $500 or $1,000 for a case that their remedy will not cure. Now and then a case comes that has not used any of these patent nostrums, as did an old Irish woman, who applied to me a short time since for treatment of her catarrh, stating, "I have niver used onything for't but a little salt and wather sniffed up me nose to wash me brains out." Too often it happens that these ready-made diagnoses of catarrh are accepted by many of us who pride ourselves upon our shrewdness in making a diagnosis and, falling in with the generally accepted idea that catarrh cannot be cured, we do not trouble ourselves to search for any better remedy than the old Irish woman's brain irrigating fluid. When the one symptom—namely, that of obstructed nasal respiration, has existed for a long time, it should lead us to make a thorough examination before sending our patient away with simply a douche or a spray. In a majority of such cases we will find that a little surgery, such as I shall have occasion to speak of when I come to that part of my subject, will often do more to cure our patient than years of treatment by the use of applications, sprays and douches. The armamentarium necessary for diagnosis need not

1. Read before the Steuben County Medical Society.

be so very extensive. A head mirror, with a focal distance of eight to twelve inches, a nasal speculum, two or three throat mirrors and a tongue depressor. Then, with the aid of a good lamp, a pretty satisfactory diagnosis can be made, and treatment more satisfactorily and scientifically applied.

In speaking of the etiology or cause of nasal stenosis, the pathological conditions found in the same will necessarily be included.

## ETIOLOGY.

The causes that lead to stenosis of one or both nasal cavities may be congenital or acquired. The most common congenital condition producing stenosis is deviation of the septum, either of its cartilaginous or bony portion or of both. This condition very rarely causes stenosis of but one nostril, there being a corresponding increase of the caliber of the other, which increase is often compensated for as age advances by a hypertrophy of the middle turbinated bone. Deviation of the septum is not always a congenital condition, as will be shown further on. Bony projections from and malformations of the vomer, ethmoid and turbinated bones frequently give rise to partial or complete stenosis. Malformation and displacement of the cartilaginous portion of the septum are also among the congenital conditions. Among the acquired conditions also occurs deviation of the septum, brought about by blows upon the nose or by pressure brought to bear upon it from directly in front, from above or from either side. My experience has taught me that the great majority of deviations take place toward the right side, thus causing stenosis of the right nostril. Also, that they occur more frequently with men than women. I am unable to explain why the septum should be more frequently deviated to the right than to the left, but its frequent occurrence in men is readily explained by the fact that they are more exposed to blows and injuries about the face than women.

Next come exostoses or morbid bony growths from the perpendicular plate of the ethmoid, from the vomer and turbinated bones.

These growths occur more frequently from the septum, and rarely reach sufficient size to alone occlude the nostril upon which they encroach, but they are often met by an hypertrophied turbinated bone, and between the two the stenosis is complete.

Ecchondromata, or morbid growths from the cartilaginous portion of the septum, occur with about equal frequency, as do exostoses; and as they generally come at the anterior nares, where

the nostrils are easily occluded, they complete the stenosis without the help of an hypertrophied turbinated bone. Recently I had occasion to operate upon a case of this sort, where the morbid growth from the cartilage had reached the size of a small chestnut, completely closing the right nostril. This growth was removed by means of the nasal saw, giving as free respiration through this nostril as the other enjoyed. The operation was rendered completely painless by injecting five minims of a 10 per cent. solution of cocaine into the mucous membrane covering the growth. These cartilaginous growths sometimes form a ridge parallel with the base of the septum, where they are equally troublesome, as in this position they frequently come in conjunction with the inferior turbinated bone, thus making a complete bridge, which might be mistaken for the floor of the nasal cavity.

Now comes hypertrophy of the epithelium and sub-mucous layer and chronic distension of the corpora cavenosa that cover the turbinated bones or chronic hypertrophic rhinitis. This is perhaps the most common cause of nasal stenosis we meet with in this climate. Coming on as a result of frequent attacks of acute coryza or cold in the head, it gives the peculiar nasal twang to the voice so common among the dwellers north of Mason and Dixon's line that marks us as "Yankees" the world over. The mucous membrane covering the turbinated bones is very richly supplied with blood by large venous sinuses, composing the corpora cavenosa, lying beneath the epithelium and sub-mucous layers. During an attack of acute rhinitis, these sinuses become engorged with blood, causing a temporary increase in the thickness of the mucous membrane. If these engorgements are often repeated, there is a stasis of blood in the sinuses, serous exudation takes place, new connective tissue is formed and a consequent permanent increase of the thickness of the mucous membrane. Figs. 2 and 3 illustrate the changes, above described, very nicely. Fig. 1 shows the membrane in a natural and healthy condition. Fig. 2 shows the change that takes place during an attack of acute rhinitis, where there is great distension of the venous sinuses. Fig. 3 gives a good idea of the condition of the membrane in chronic rhinitis, where there has been an exudation of plastic material and hypertrophy of the mucous tissues resulting. These plates are copied from Sajous' work on Diseases of the Nose and Throat.

The next frequent cause of stenosis is hypertrophy of the middle and inferior turbinated bones. This condition is frequently

FIG. 1.

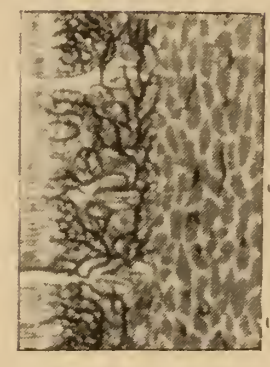

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

FIG. 7.

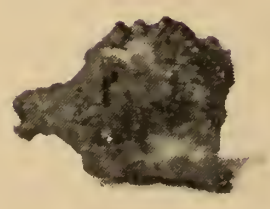

FIG. 8.

associated with the morbid state of the mucous tissues covering them, as just described. These hypertrophies may be of the anterior or posterior part of the bone only or of the whole structure. The posterior hypertrophy presents two appearances upon rhinoscopic examination. One, a dark red, almost purple color, presenting a granular appearance not unlike a large raspberry. Fig. 4 is a photograph of one that I removed with the cold wire snare recently from the inferior turbinated bone of a young man, a painter by occupation. The other a pearly white. They are sometimes so large as to completely close the posterior nares and extend into the naso-pharynx, causing deafness, as will be shown further on. I recently removed, by means of the cold wire snare, a portion of an hypertrophied inferior turbinated bone from a young man about thirty years of age, who came to me complaining of deafness in the left ear. I could find no other cause for the deafness than this enlarged bone, which, I inferred, was interfering with the free passage of air to the tympanic cavity, either from closure of the Eustachian orifice by direct pressure, or a complete stasis of the air as a result of the stenosis of this nasal passage. The hearing distance in this ear, as tested by the watch, was 30–60, and after the removal of this hypertrophy it quickly rose to 60–60 and so remained the last time the patient was seen. Fig. 5 shows the part of the bone that was removed in this case.

Tumors, both benign and malignant, frequently occur in the nasal cavities, causing more or less stenosis, according to their size and position. Sarcomatous and scirrhous tumors very rarely occur here. The most common are mucous and fibrous polypi, springing from the under surface of the overhanging turbinated bones, sometimes from the septum and not unfrequently from the vault of the pharynx. The presence of polypi are generally easy to ascertain, unless when by their increased growth they have pushed the overhanging turbinated bones over against the septum and nothing but this bone can be discovered upon examination. This occurred with me recently. A 10 per cent. solution of cocaine was applied to an hypertrophied inferior turbinated bone preparatory to using the cautery upon it; but by the constringing effect of the cocaine, the soft tissues were so reduced that I was able to discover several polypi and remove them. One of the most notable cases I have met with of polypoid growth was that of a young lady eighteen years of age, whose right nostril had been occluded for eight years by polypi. They could be easily seen at the anterior nares

and a portion of a large one was visible projecting below the velum. A large number, about the size of chestnuts, were removed from the anterior nares at different sittings by means of the Jarvis snare. The large one in the posterior nares was removed in the following manner: a small gum catheter, carrying a strong cord, was passed through the nostril into the throat and the cord brought out through the mouth. By means of this cord a large loop of number five piano wire, previously threaded into a Jarvis snare, was drawn through the nostril and into the throat. Then, by passing the finger up behind the velum, the loop was adjusted about the attachments of the tumor and with a few turns of the milled nut the tumor dropped into the throat and was removed from the mouth. This tumor is shown in its natural size in Fig. 6.

These tumors present almost every conceivable shape and size. They are often molded into the many peculiar forms that they present by the shape of that part of the cavity which they have inhabited. Fig. 7 is a photograph of a tumor of this nature, natural size, that owes its peculiar shape to the place of its attachment. It was removed a few months ago from the naso-pharynx of a young lady who, by the way, had suffered for some time previous to its removal with asthma. It was attached by a very small pedicle to the mucous membrane in the region of the *fossa of Rosenmuller*. The removal was quite easily accomplished by means of a Bosworth snare, using a curved canula passed back of the velum from the mouth.

Adenoid vegetations sometimes form in the vault of the pharynx as a result of naso-pharyngeal catarrh. Their presence always affects the voice, causing the sufferer to speak thick, and if existing to any great extent will cause stenosis of one or both nasal cavities. This morbid condition occurs most frequently in children. Children thus affected are mouth breathers and with the half-open mouth and vacant countenance that such sufferers invariably present, they readily acquire the titles "blockheads," "stupid," "half-witted," and the like, titles which they quickly drop as soon as the vault of the pharynx is cleared of the adenoid vegetation.

Foreign bodies frequently find their way into the nasal cavity and by their presence and the swelling they occasion, cause stenosis of the same. If not removed they sometimes form the nucleus of calcareous concretions or rhinoliths. In Fig. 8 is shown a photograph, in its natural size, of a rhinolith that I removed about five years ago from the right nasal cavity of a gentleman forty-five years

of age. There was complete occlusion of this nasal cavity from the presence of a large quantity of adenoid tissue with which the rhinolith was surrounded. He gave a history of having suffered from occlusion of the nasal passage for twenty-five years.

### SYMPTOMS.

The most prominent objective symptom of nasal stenosis will be obstructed nasal respiration. The subjects are mouth breathers. Another will be the peculiar tone of voice, with which we are all familiar. Loss of the sense of smell is not always a result, but frequently occurs. Pain is often present both in the nasal cavities over the frontal sinuses and through the temples, generally dull and heavy, but occasionally sharp and neuralgic in character. Asthma is also a frequent symptom, more often when the stenosis is caused by large hypertrophy of the posterior ends of the middle turbinated bones, or when the posterior nares and vault of pharynx is filled with adenoid vegetations or numerous small polypi.

I have met with two cases recently where there was stenosis of one nostril, as a result of an hypertrophy of the middle turbinated bones and causing in both quite severe neuralgia over the superior maxillary region of the same side. Deafness is a frequent accompaniment, due often, no doubt, to a static condition of the air in the naso-pharynx and a consequent collapse of the Eustachian tube; due frequently to a catarrhal condition of the tubes and tympanic cavities, aggravated by the stenosis. A mechanical closure of the Eustachian tubes may take place by an hypertrophy of the posterior ends of the middle or inferior turbinated bone, as no doubt was the condition in the case previously referred to, or by polypi, as was the case with the young lady, from whom the large polypus (see Fig. 6) was removed. Her first remark after its removal being, "Why, I can hear with this ear now," indicating the ear corresponding to the side from which the growth was removed. Another quite constant symptom is dulness of the intellect and inability to think clearly and consecutively upon any subject. Depression of spirits, morbid fears and aversion to society are often complained of. So, too, are hay fever or attacks of sneezing with coryza and lachrymation. These symptoms do not differ from simple periodical hyperesthetic rhinitis, except in that patients with permanent stenosis are rarely free from them, which symptoms are greatly aggravated during the summer months or hay fever season. Coughing frequently accom-

panies stenosis, caused by the secretions from the nasal cavity passing into the naso-pharynx and so finding its way into the larynx and acting as a constant source of irritation. The ocular symptoms are many and varied ; increased lachrymation, stricture of the nasal duct, from extension of the catarrhal inflammation from the lining membrane of the nose ; inflammation and swelling of the lachrymal sac or chronic dacrye-cystitis ; affections of the lachrymal sac and nasal duct, conjunctivitis, ulcers of the cornea, are some of the more common ocular troubles resulting directly and indirectly from nasal stenosis. Converging strabismus, temporary myopia and astigmatism may be caused by the irritation of nasal stenosis. In fact, I hardly ever treat any affection of the eyes without examining the nasal cavities and, when it is possible, remove whatever may be a source of irritation there.

### PROGNOSIS.

The prognosis will, of course, be largely influenced by the cause, but is universally favorable in stenosis from all variety of causes, provided the patient has sufficient pluck to pursue the treatment.

### TREATMENT.

In speaking of treatment I shall first mention the treatment of the most common form of stenosis—namely, that caused by hypertrophy of the mucous covering of the turbinated bones, chronic hypertrophic rhinitis. The chief aim here is to remove or reduce the thickened tissue. This may be done by both medicinal and surgical means. Where there is no hypertrophy of the bone associated with the thickened tissues, escharotics and astringents are of service. Among the escharotics, chromic and glacial acetic acid are perhaps about the best. These can be applied by means of an aluminum probe, slightly flattened and bent to be more convenient. (Before applying any of these, the parts should be sprayed with a 2 per cent. solution of cocaine.) The flattened portion (which should be about two inches long) is covered with absorbent cotton. The side that will be in contact with the septum is smeared with vaseline ; the other side carries the escharotic. The probe is then passed well back into the nasal cavity and the side that is covered with the escharotic is quickly applied to the thickened surface of the turbinated bone. These applications should be followed immediately by an alkaline spray to neutralize any excess of the acid. The applications may be made once or twice a week, until the cicatricial contraction following their use is sufficient to relieve the

stenosis. The galvano-cautery is so handy and so much more thorough in its action that I seldom employ any other means in these cases. An 8 per cent. solution of cocaine applied by means of pledgets of cotton, not only produces anesthesia of the parts where the cautery is to be applied, but it also produces a temporary patency of the nasal cavity by emptying the venous sinuses of the greater part of the blood and makes the application of cautery much more convenient. The flat cautery knife is preferable. It is introduced and applied to the posterior part of the turbinated bone while cold, and as the current is turned on, the knife is drawn forward, cauterizing the whole surface of hypertrophied tissue, care being taken not to allow the knife to touch the septum, as this would favor an adhesion of the turbinated bone to the septum. If the knife is heated to a bright red heat and cocaine thoroughly applied, there is but little pain from these applications. The cautery may be used in most cases twice a week; the slough usually comes away at the end of three days. During the treatment, patients should be directed to use a small hand atomizer, with which the nasal cavities can be well sprayed and cleaned, using an alkaline fluid containing some antiseptic. The following is a modification of Dobel's solution that I usually prescribe:

℞ Acid carbolic ..... gtt. x.
Sodii bicarb .....
Sodii biborati ..... aa gr. xv.
Pine needle extract .....
Listerine ..... aa ʒij.
Glycerini .....
Aqua rosæ ..... aa ℥ss.
Aqua pura ..... ad. q. s. ℥iv.

M. S.—Cleansing spray solution.

I do not place much dependence on astringent sprays and applications alone, nor do I often use bougies for gradual dilatation, as their use is tedious and painful. In many of these cases it is well to first remove a part of the thickened tissue by means of the snare, bistory or Knight's nasal scissors previous to applying the cautery, as it shortens the period of treatment. During the process of healing and for a time afterwards I usually direct my patients to use the following:

℞ Menthol .....
Camphor ..... aa gr. x.
Eucalyptol ..... gtt. x.
Oil gaultheria ..... gtt. ij.
Liquid albolene ..... ad. q. s. ʒij.

M. S.—Use in an albolene atomizer.

This is used immediately after using the cleansing spray by means of a special albolene atomizer, that can now be procured at any drug store.

Where there is bony hypertrophy, the galvano-cautery snare, the cold wire snare or the saw can be used. I prefer the cold wire snare and have never met with a case where its use was followed by severe hemorrhage. With the cautery snare there is not much danger from hemorrhage, but it is not as convenient to apply. After these operations and bleeding has ceased, insufflation of iodoform or aristol as an antiseptic precaution is necessary.

In the treatment of stenosis caused by deviation of the septum, it is always best to endeavor, if there is any possible chance of doing so, to open the nostril by removing a portion of the middle turbinated bone nearest the greatest convexity of the septum. If this is not possible, the septum should be straightened. When the deviation is only of the cartilaginous portion, this may be done by making a vertical incision through it, then with the finger introduced into the nostril encroached upon, push the septum over and retain it in place by using steel hair-lip pins suitably adjusted, or by means of plugs of carbolized okum. If plugs are used they must be removed at the end of twenty-four hours and the parts thoroughly sprayed with an antiseptic solution, permanganate of potash, one grain to the ounce, being as good as any. The pins may be left in for ten days or two weeks. Where there is deviation of the bony septum, the septal punch will come in play, choosing the die that best suits the case, to weaken the septum. After use the die is removed and the flat blades of the punch can be used to force the septum over, where it is kept in place by okum plugs.

Exostosis and ecchondromata are frequently associated with deviations of the septum. These, of course, must first be removed before any operation to straighten the septum is undertaken. Exostoses are removed with the nasal saw or by means of burrs and trephines. The operation is painful, as the cocaine, even if injected into the mucous membrane covering them, does not all affect the bone, but with a fine, sharp saw the operation is quickly done. Ecchondromata can often be removed with a strong bistory, but if they are of any considerable size the saw is preferable. A few drops of an 8 per cent. solution of cocaine injected into the mucous membrane covering these growths renders their removal perfectly painless.

In removing tumors the galvano-cautery and cold wire snare are the main reliance. In removing mucous polypi, I use the cold wire snare in all cases where it is possible to encircle them, as its use is much less painful than the forceps and not as liable to bring away a piece of the bone with the pedicle. The galvano-cautery snare is the best and safest instrument to use in the removal of fibrous polypi and tumors other than polypoid growths that have become perfectly organized and firmly and deeply attached. Small and sessile mucous polypi may be destroyed by the galvano-cautery puncture or by the application of escharotics. After removal of polypi, the place of their attachments must be thoroughly cauterized to prevent their return.

Adenoid vegetations in the vault of the pharynx can frequently be removed by the sharp finger nail of the forefinger, introduced behind the velum and swept across the vault. We can frequently in this way make the diagnosis of their presence and remove quite a quantity of the adenoid tissue at the same time. The curette, with a flexible shaft, in order that it may be bent, causing the blade to sweep in any direction, will be useful in removing tissue that cannot be reached by the finger nail. Cohen's post-nasal cutting forceps is probably the best instrument for thoroughly removing adenoid vegetations from the vault of the pharynx. The cold wire and galvano-cautery snares are frequently used.

Foreign bodies and rhinoliths can generally be removed with light but strong nasal forceps having the nasal cavity well illuminated. If from any cause forceps cannot be used, a strong probe, slightly flattened and bent at one end, can be gently passed well by the foreign body, either above or below it, and then by raising or lowering the free end of the probe, the intruder will be expelled.

In the foregoing paper I have attempted to present to you, in regular form, some of the more prominent features of an abnormal condition, rather than a disease *per se*, but brought about by a great variety of pathological changes. The subject is a large one and I have only been able to touch upon the more important points, and that too, I fear, at the risk of becoming an infliction upon a good-natured society.

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New Treatment for Hydrocele.—Neuman (*St. Louis Med. and Surg. Jour.*) simply opens the hydrocele and leaves the canula in for two or three days, taking pains to surround it with antiseptic wool. The irritation of the canula is sufficient for drainage, without causing inflammation.

# DANGERS OF THE UTERINE TAMPON.[1]

By WILLIS E. FORD, M. D., Utica, N Y.

The advent of a new method of treatment, which promises to speedily accomplish results that have heretofore been obtained slowly, if at all, naturally is accepted with enthusiasm. If we add to this the statement that the new method is devoid of danger, the chances are that it will be tried by a great number of physicians, and that the cases will not always be carefully selected. It is some time since the vigorous curetting and packing with gauze of a diseased uterus has been pretty generally practised, and enough cases are before us to make a general survey of this method of treatment profitable. That it is a quick and brilliant mode of reaching results in certain cases, is on all hands agreed; but that it is beneficent in all cases, as it is now being applied, is very doubtful. It is so easy, however, to adversely criticise almost any legitimate surgical procedure, that at the outset I desire to disclaim any intention of detracting from its real merits, and only aim to point out some dangers that my experience has thrust upon me.

The dull curette has for years been successfully used where there were villosities or polypoid masses or retained fragments of placenta to be removed, and if the operators had gone a little further, and had insisted on the dilatation of narrowed cervices and subsequent attention to the proper drainage of the uterus, there would not have been the necessity for so radical a change in methods as has lately been seen.

The sharp curette, or spoon, has for a long time been necessary for the removal of sloughing cancerous masses, or for fibroid nodules, but not until quite recently has it been advocated for endometritis. Topical applications, which have in the main, and justly, been discarded, never accomplished what in favorable cases the curette and the tampon is seen every day to accomplish. The danger of adopting any really valuable treatment as a cure-all is, however, apparent, and the danger in certain cases of the curette and uterine tampon ought not to be overlooked. Endometritis is such a stubborn disorder that vigorous measures, amounting to a surgical operation, are justifiable; but there are certain conditions that preclude mechanical violence, even in the name of surgery. Such are the cases of fixed malpositions, due to adhesions from inflammatory exudates about the adnexa; and such, also, it seems

1. Read before the Central New York Medical Association, Buffalo, N. Y., October 16, 1894.

to me, all those cases of catarrhal salpingitis accompanying endometritis. Those who first advocated the sharp curette after thorough dilatation of the entire cervical canal and of the body of the uterus, when necessary, did not advocate the tampon of gauze; and several men who are entitled to speak authoritatively on such matters, notably W. Gill Wylie, in this state, preferred other means to secure drainage—either a hard rubber instrument or open wire stem, or they left the dilated uterus to drain itself. Some critics, notably the Prices, of Philadelphia, did not approve the violent dilatation necessary, nor the device for drainage. The assertion was made that the theory was wrong, and that the injury to the uterine mucosa was found to set up salpingitis in a considerable number of cases, and that the last end of these patients was worse than the first.

It now seems to me that these differences of opinion were due to the fact that cases of perimetritis were accepted without previous treatment to release adhesions, and chiefly, perhaps, to the manner in which the gauze tampon was made.

On the whole, however, the results have been so good that now not only gynecologists, but general practitioners, at least in Central New York, are practising rapid dilatation, curettement more or less vigorous, and tamponing with gauze more or less firmly in a large number of cases. I am aware, however, that some deaths have followed this procedure, and that many cases of salpingitis are found whose history would seem to point to the operation as a cause. Last year I repaired a perineum for a woman living in a distant part of the state, and knew from her history and from careful examination that she had no tubal disease. Some six months afterward, her physician wrote me that she had just consulted him for great pain following a tamponment of the uterus for some catarrhal trouble, and he found in the left broad ligament a tumor larger than a hen's egg, very sensitive but entirely movable. While manipulating it, the sac ruptured. He was much alarmed and put the woman in bed, and after a short and not serious illness, she recovered sufficiently to be sent again to St. Luke's Hospital. I found a thickened tube and the uterus retracted, and moderately fixed to the left.

Another case, not so fortunate in its outcome, followed dilatation and tight tamponing of the uterus for dysmenorrhea. She was about twenty years old and unmarried. Her physician, an excellent general practitioner, said he was careful as to sepsis, but that

twenty-four hours afterward she had a chill and rise of temperature. Soon after the gauze was removed, salpingitis followed, and two months later, when I saw her, she had on the right side an encysted pyosalpinx, holding more than a pint of pus, and was so feeble from sepsis that her friends declined to have any operation done. Such cases, I presume, are familiar to most of you who practise gynecology, and I need not take your time to relate more specific instances of what I believe to be due to the accident of too tight tamponing, especially of the cervical canal.

Many of my cases have been in the practice of such excellent surgeons, I cannot think the accident due to want of attention to antiseptic precautions, and while divulsion of a cervix or the most gentle scraping of an endometrium may occasionally be followed by considerable disturbance, the result is not generally an encysted salpingitis. Therefore, I do not think the accident the result of the dilatation nor of infection at the time of the operation, but a careful examination of the histories of more than a dozen such cases points to the tampon as the cause of tubal disease.

The original idea that gauze was necessary to keep the neck of the uterus open after thorough dilatation, as well as to drain the uterus, was manifestly based upon two errors. First, the uterine canal does not close down and prevent drainage after such operation; and secondly, iodoform gauze is not a drainage-tube, and does not remove the pus that may ooze into it. The statement that the gauze tightly packed in the cavity of the uterus after curettement causes a kind of involution, or that it improves the circulation of the parts, is not affirmatively proven by the cases I have seen, while often the immediate effect of dilatation, curettement with a dull instrument and thorough swabbing with carbolic acid or chloride of zinc, is followed by loss of bulk, reduction of tumefaction, and, it seems to me, the consequent improvement of circulation without tamponing. Of course it is understood that as perfect drainage of the uterus as it is possible to secure is aimed at always. If more attention was given to maintaining a proper position of the organ after curettement, and less reliance placed upon gauze or any other device to secure drainage, better results would be obtained and fewer accidents occur. All must have observed after curettement and packing that when the gauze is removed, the last layers contain some detritus and often pus, which has not been drained, but retained. Iodoform gauze is not an antiseptic, and within the uterus allows only the bloody serum to

escape, and retards putrefactive changes, but does not remove or sterilize pus that comes down from a diseased tube. In purulent endometritis, therefore, with the organ movable and in normal position, the gauze tampon is not necessary. If the uterus is fixed even slightly, it is dangerous, because of the probability of catarrhal salpingitis being present, and the danger increases in proportion to the firmness of the tampon. If the uterus is fixed in a malposition, means ought first to be employed to release the adhesions and to restore the organ to as nearly a normal position as possible before curettement, and no gauze, or but a very light tampon of it, ought then to be applied.

Among the agents to be employed to release adhesions, and to thus pave the way for proper drainage, I would place galvanism at the head of the list, and for those who do not use this, the hot vaginal douche, vaginal tampons of boro-glyceride, iodine, etc. The first serious accident from curettement and packing I ever saw was in a case with adhesions, and the woman was very ill three months, and got up with double salpingitis.

In cases of hemorrhagic endometritis without polypoid growths or villossities, the good results attributed to the sharp curette and packing are more frequently due to the thorough dilatation, and to the topical application of a strong antiseptic, than to any other thing. I have often failed to cure these cases with the curette and tampon, and have obtained better results from thorough dilatation and topical applications, especially in young women.

The tight tampon of iodoform gauze is necessary often to stop hemorrhage, but in this case I remove it in thirty-six hours.

I have several times succeeded in draining through the uterus an encysted salpingitis, where the uterus and tumor were movable, by full dilatation and very tight tamponing. In these cases, the tube was not folded on itself and displaced, but was spindle-shaped and in nearly the normal position. There the tight tampon seems to me to be called for, but this interesting subject is not within the proper limits of this paper.

## DISCUSSION.

Dr. H. T. Williams: I think the paper leaves nothing to discuss, Mr. President, the author having gone over the ground so thoroughly, and I simply wish to endorse the paper. I think that a paper like that does a great deal of good, especially to the general practitioner. I have

seen a great deal of harm done by tamponing. My experience is it is not necessary to apply a tight tampon. A simple strip of gauze will frequently stop the hemorrhage without any pressure or force used at all. Another important thing after curetting the uterus, is to irrigate the uterus with mild antiseptics or water, and not use too much force in the irrigation, and to use hot water after that. There are very few cases in my experience that require tamponing at all.

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## HOSPITAL GANGRENE OF DIPHTHERITIC ORIGIN—THE RELATION OF TUBAL PREGNANCY TO PELVIC HEMATOCELE—PERITONEAL ADHESIONS.

By EMORY LANPHEAR, M. D., Ph. D., St. Louis, Mo.

### I.—HOSPITAL GANGRENE.

The question as to the relation of diphtheria to hospital gangrene has never been settled, and in these days of antisepsis when traumatic diphtheria or hospital gangrene has almost entirely disappeared there seems to be little possibility of deciding it by actual study of cases. For this reason the history of a patient recently under my care is of unusual interest. Upon a lady of fifty-three years, who had suffered for many years by reason of an absence of the posterior wall of the bladder from a slough following an attempt to form a vagina where there was congenital absence of uterus and vagina, I made a plastic operation to close the vulva, inserting a catheter for continuous drainage. Everything progressed favorably for sixty hours, when I removed the catheter on account of vesical irritation, instructing the nurse to introduce it in a few hours if the urine was not passed naturally. I then saw a case of diphtheria requiring tracheotomy in a part of the city quite distant from my home and office; while there an urgent message came from the first patient, who was suffering intensely from the retention, the nurse having failed upon trying to pass the catheter. I, therefore, hastened to the hospital without going home to change my clothing or thoroughly sterilize my hands, and hastily replaced the catheter. Relief was immediate and as the patient was in excellent condition next day I left to perform an operation several hundred miles away. On my return I found my patient in a very critical condition. About forty-eight hours after the introduction there was a severe rigor followed by a temperature of 104.5 and most profound prostration. A few hours later the wound and contiguous mucous membrane found covered with a grayish white

deposit which the experienced nurse at once characterized as "diphtheritic," although unconscious of any possibility of infection. Late the next day I saw the patient and found a typical, dirty-grey, diphtheritic membrane upon the affected surface, with edema; the temperature 97, pulse thready and the patient unconscious from marked toxemia. I at once opened up the wound and cauterized it with pure carbolic acid, and continued the energetic stimulation which had been instituted by the doctor temporarily in charge. From this time onward the course of the disease was characteristically that of hospital gangrene described as the superficial croupous variety. A large greyish-yellow mass of tissue assumed a tow-like appearance and broke down into a gangrenous pulp, which was thrown off after several days. The sub-normal temperature continued for three days and was succeeded by an intermittent fever of an irregular character, the chart showing no record above 100.5, which lasted for eight days, the general condition gradually improving. The subsequent history was that of diphtheria, including a paralysis of the right arm and hand which became marked in the second week of convalescence; the paralysis disappeared within six weeks after the onset of the traumatic diphtheria.

Here was a case presenting the typical symptoms of "hospital gangrene," unquestionably an infection-disease, and undoubtedly of diphtheritic character—the paralysis alone being sufficiently diagnostic. How Rosenbach and Roser, the two authors who contend strongly against the identity of the two diseases, would explain the conditions I am at a loss to know—possibly that the trouble was not "hospital gangrene" at all, but a diphtheria of the vulva. Yet the symptoms were those of gangrene, the local conditions were identical with those described by authors of much experience as those of hospital gangrene, and were so pronounced by competent surgeons who saw the case, but who did not know of the mode of infection.

So far as I know, this is the only case that I ever infected in my work as a surgeon.

## II.— THE RELATION OF TUBAL PREGNANCY TO PELVIC HEMATOCELE.

There can be no doubt that ectopic pregnancy is much more common than we have been taught to believe. During the past four weeks seven cases of ruptured tubal pregnancy have been reported to the St. Louis Medical Society, with presentation of the specimens

removed by abdominal section. One of the specimens was not, however, a true ruptured tubal pregnancy, because the operation was made for pelvic hematocele and the fetus was found still in the tube with its enveloping membranes and tubal walls uninjured, the hemorrhage having occurred from a rent in the tube near its uterine extremity. This was by some regarded as a rare condition of affairs, but I am inclined to think differently. In my own abdominal work I have operated upon quite a number of cases of ectopic pregnancy which have presented the typical history and specimen; in other instances I have made section upon cases termed "pelvic hematocele," yet they have uniformly proven cases of extra-uterine fetation with hemorrhage. From a careful examination of these, as well as numerous cases in the practice of other operators, I cannot but agree with the assertion that nearly all cases of pelvic hematocele are dependent upon extra-uterine pregnancy. Nor is it at all necessary that the tube rupture, in order to produce the trouble—the blood may pour out of the open fimbriated extremity, for most hematoceles are not extraperitoneal—they form as a coagulum, soft, without the form of a "tumor," and easily scooped out; as a definite tumor of more or less organized clot, which is adherent to the peritoneum and leaves the latter rough upon removal of the mass; and as a tumor, consisting of fetus, blood-clot and ovary surrounded by a so-called cyst-wall—really an envelop developed by organization of the clot—which may form with remarkable rapidity. In one of my cases the coagulum filled the whole pelvis and much of the lower abdomen, the "cyst-wall" extending across just a little below the umbilicus and of considerable resistance when the operation was made—ten days after the rupture.

We must not, of course, lose sight of the fact that the tube may rupture in such a way as to cause the formation of extraperitoneal or "broad ligament hematocele" upon the one hand, or to the development of "broad ligament pregnancy" on the other; nor that diffuse hemorrhage into the abdomen may result. In my only fatal case I found a five months' fetus floating in non-coagulated blood up under the liver. But excluding such cases as these, as well as those rare occurrences, pelvic hematocele from ruptured cysts, etc., it does seem to me that the time is now at hand when we can say that almost invariably pelvic hematocele and ruptured tubal pregnancy are synonymous terms.

Furthermore, in spite of the fact that many cases have recov-

ered (temporarily at least) without operative interference, that treatment which is most thoroughly conservative, viewed from every standpoint, is embraced in abdominal section and removal of the abnormal pelvic contents, whether the diagnosis be pelvic hematocele or ruptured tubal pregnancy.

### III.—PERITONEAL ADHESIONS AND THEIR IMPORTANCE.

It seems to me that too little importance has been attached to peritoneal adhesions; not those alone dependent upon abdominal section, but those more frequent bands due to a peritonitis which may have occurred years before the adhesions gave rise to the painful symptoms or to a functional disturbance of the viscera implicated. The pain may be of the dull, continuous, exhausting variety, or it may be quite intense at times, especially when due to the dragging of organs involved in the adhesions or by constriction of the intestine; even perforation, with septic peritonitis, may result from the latter condition, as in one of my patients. When the pain is dependent upon interruption of the passage of intestinal contents, it is frequently very severe, quite like hepatic or renal colic—the typical pain of chronic obstruction of the bowels.

Yet the recognition of such bands is not easy; in fact, it is usually rather difficult, and even by a diagnosis by exclusion, the existence or non-existence of peritoneal adhesions as a cause of pain is often speculative and the surgeon is compelled to acknowledge that he can only determine by an exploratory incision, which is entirely justifiable. Points of import which greatly assist in a correct interpretation of the symptoms are: (1) The history of an attack of peritonitis, either acute or sub-acute or of an abdominal section. (2) The precise location of the pain and its relation to any previous local inflammation. (3) The existence of an appendicitis which has undergone spontaneous "cure." (4) The time when the pain appears in relation to meals. (5) The character of the pain.

Since the tendency of peritoneal adhesions and bands is to become thinner and eventually to disappear, operation is not urgent unless the symptoms are severe or evidences of marked disturbance, like intestinal obstruction, arise. When, however, such manifestations do present themselves the experienced surgeon should not hesitate to open the abdomen, even though he may not be positive in his diagnosis. Even persistent severe pain is suffi-

cient to warrant section for the purpose of breaking up the adhesions. The relief from such treatment will be permanent as a rule.

2312 SALISBURY STREET.

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# Progress in Medical Science.

## STATE MEDICINE, PUBLIC HEALTH, HYGIENE AND BACTERIOLOGY.

Conducted by ERNEST WENDE, M. D.,
Health Commissioner of the City of Buffalo, N. Y.

### WORK IN THE BACTERIOLOGICAL BUREAU, DEPARTMENT OF HEALTH, BUFFALO, N. Y.

WILLIAM G. BISSELL, M. D., Bacteriologist.

ON ACCOUNT of the many inquiries which have been received at the Buffalo Bacteriological Laboratory regarding the bacterial examination of suspected cases of diphtheria, it has been thought desirable to give a condensed account of the facts regarding the work, together with the methods employed and the reliability of the same.

#### DIPHTHERIA.

In order to do this satisfactorily, it will be necessary to state in brief the more important investigations made which demonstrates that diphtheria is due to the organism described by Löffler and is primarily a local disease.

In 1883, a microörganism, peculiar and striking in appearance, was found by Klebs[1] to be of constant occurrence in the false membrane of persons dying of true epidemic diphtheria. In 1884, Löffler[2] published the result of extensive investigations on the subject. He found the microörganism described by Klebs (a bacillus) in nearly all cases of throat inflammation which had been previously diagnosticated as diphtheria. He succeeded in isolating the organism in pure culture and found that when inoculated upon the abraded mucous membrane of susceptible animals, it produced a false membrane, frequently followed by death of the animal. He also demonstrated that by injecting subcutaneously the proper amount of a bouillon culture, death could be produced in guinea-

pigs with characteristic diphtheritic lesions. Löffler failed to find the organism in every case examined by him, and that is now fully explained by the fact that in certain varieties of pseudo-membranous inflammation, especially like those occurring in scarlet fever, the organism was not found, such inflammation being erroneously considered at that time to be true diphtheria. In 1888, Roux and Yersin[3] published the first portion of a series of thorough investigation. They found the organism in all cases of characteristic diphtheria and found that the properties of the organism, as described by Löffler, were entirely correct. They demonstrated that when the organism was inoculated on the healthy mucous membrane of the trachea of rabbits, no result followed, but if the mucous membrane was abraded, a typical diphtheritic lesion was the result. Roux and Yersin produced characteristic diphtheritic paralysis in animals, getting this result principally in pigeons and rabbits, which had been inoculated with cultures of the organism and did not succumb to a too rapid intoxication, the paralytic symptoms in the case of a pigeon developing twenty-one days after the apparent recovery of the animal. Quoting directly from the author, he states: "The occurrence of these paralyses, followed by the introduction of the bacilli of Klebs-Löffler, completes the resemblance of the experimental disease to the natural malady and establishes with a certainty the specific rule of this bacillus."

Among other more recent investigators are Welch and Flexner[4], Prudden,[5] Babes[6] and others, and it is now generally conceded to be a fact by bacteriologists and men of experience that this organism is the etiological factor in the production of diphtheria.

Some claim that it does not appear to be the only factor, and that seems true, for, as a rule, it requires some abnormal condition—a reduction in the vital capacity of the human organism—for the invasion of the disease and this in a way applies to all infectious maladies.

Under the name "diphtheria," therefore, should be included all inflammations of the mucous membrane, due to the bacillus of Klebs-Löffler. An acute hyperemia, caused by this organism, is as truly diphtheritic as an inflammation with a pseudo-membrane or exudate. As to how much reliance can be placed on the bacteriologic examination in the diagnosis of diphtheria, I quote directly from a recent report[7] of the original work on this subject under

the direction of Dr. Hermann M. Biggs in the Bacteriological Department of the City of New York :

After a year's trial and thorough investigation the following conclusions were arrived at : the examination by a competent bacteriologist of the bacterial growth in a blood serum tube which has been properly inoculated and kept for fourteen hours at the body temperature, can be thoroughly relied on in cases where there is visible membrane in the throat, if the culture is made during the period in which the membrane is forming and no antiseptic, especially no mercurial solution, has lately been applied.

In cases where the disease is confined to the larynx or bronchi and where, therefore, there is no visible exudate against which the swab can be rubbed, surprisingly accurate results can be obtained from the examination of cultures, but in a certain proportion of cases no diphtheria bacilli will be found in the first culture and yet will be abundantly present in later ones, the bacilli having probably been coughed up more freely as the disease progressed. We believe, therefore, that absolute reliance for a diagnosis cannot be placed on a negative result in a single culture from the pharynx in purely laryngeal cases.

In nasal diphtheria a negative result may be obtained from a culture made from the throat and yet the bacilli be found in cultures from the nose.

In making a diagnosis from a culture, it is essential to know the duration of the disease in the case from which it was made, because, although bacilli may remain present and alive in some throats for many weeks, it is, nevertheless, important to remember they may vanish early and suddenly and that, therefore, the cultures cannot be certainly relied on after the membrane begins to disappear.

The use of antiseptics shortly before making the inoculation of a culture tube may render the culture useless for diagnosis. It has been found in a few instances that a culture made from a case of diphtheria, shortly after a thorough irrigation with a 1-4000 solution of bi-chloride of mercury, gave no diphtheria bacilli, though one made just before and one made some time later gave them abundantly. It is a curious fact that under such circumstances a vigorous growth of other organisms may take place.

The above conclusions are true only when the inoculations have been properly made and, in judging cultures received from physicians in general, the greatest care must be taken. Some cultures are made carelessly and some evidently without taking the pains even to read the instructions or to glance at the condition of the coagulated serum in the tube. If, therefore, when no diphtheria bacilli are found, the bacterial growth is scanty, the media dry or contaminated, or the inoculation in any way faulty, the case must be referred back for another culture.

The second culture in these cases not infrequently contains the bacilli when the first did not.

The absence of bacilli in a culture proves the case to be one of false diphtheria only when it has been possible to make it under the proper conditions.

The Department of Health in the City of Buffalo will issue in the near future, to the physicians of the city, the following circular :

DEPARTMENT OF HEALTH,
BUFFALO, N. Y.

*Circular of Information Concerning the Use of Bacterial Cultures for the Diagnosis of Diphtheria.*

Recent bacterial investigations have shown that a considerable proportion of the cases of pseudo-membranous and exudative inflammations of the throat and upper air-passages, commonly considered as diphtheria, and having the anatomical appearances found in diphtheria, are not true diphtheria. These cases may be called pseudo, or false diphtheria.

It has also been shown that a considerable number of cases which are apparently false diphtheria prove, on bacterial examination, to be true diphtheria. While in true diphtheria the mortality is very high and the danger of transmission to others is great, in false diphtheria the mortality is low and the danger of infection slight. The differential diagnosis between the true and false diphtheria can be made, in the greater majority of cases, by bacteriological examination within twenty-four hours, while without this the differentiation is difficult or impossible.

The Health Department is now prepared to make use of bacterial cultures for diagnosis in all cases of suspected diphtheria occurring in the city, and desires that in every case the physicians should themselves make the inoculations. They should be made in every suspicious case at the earliest possible moment, for during convalescence the specific organisms often disappear from the throat, and the full benefit of a positive diagnosis is not obtained, unless it is made early in the disease.

The inoculations are made by gently rubbing a cotton swab against the throat, and then drawing it over the surface of the culture medium. The physician can obtain, free of cost, a culture tube and swab, and the simple directions necessary for their use, at any one of the addresses given on the "pocket card."

After the inoculation the tubes in the box are to be returned at once to the station from which they were obtained, it being necessary to have them there before 3 P. M., or sent directly to the Health Department by 6 P. M.

The diagnosis will be ready by noon the following day. The attending physician can obtain this immediately by telephoning to the department after that time, and when this is not done, he will be notified by mail. Cases which prove to be false diphtheria will not be visited by the Health Department inspectors. Cases, on the other hand, which prove to be true diphtheria, will be subjected to the usual rules and regulations covering contagious diseases.

Experiments have led the department to adopt the rule that no person who has suffered from diphtheria shall be considered free from contagion until it has been shown by bacteriological examination, made after the disappearance of the membrane from the throat, that the throat secretions no longer contain the diphtheria bacilli, and that until such examinations have shown such absence all cases should remain isolated and under observation. Disinfection of the premises, therefore, should not be performed until examination has shown the absence of the organisms.

It has also been found that, occasionally, when culture tubes are inoculated immediately after irrigation of the throat with antiseptic solutions, the cultures do not show any Löffler bacilli, although subsequent examinations may demonstrate their presence. This observation should be noted in making inoculations.

When the bacteriological diagnosis does not harmonize with the clinical facts and the history, as shown by antecedent or subsequent cases of diphtheria, and where there are any defects or reasons for complaint regarding the service in any respect, physicians are earnestly requested to report these promptly to the Health Commissioner. Knowledge of defects in the service can only reach the department through such reports, and the service can only thus be improved and perfected.

Physicians are requested to read carefully the directions accompanying the culture sets, and to follow exactly the instructions given. Thus uniformity in method and accuracy in results will be insured.

ERNEST WENDE, M. D., *Health Commissioner.*

Accompanying this circular will be the referred to "pocket card," which reads as follows:

DEPARTMENT OF HEALTH, BUREAU OF BACTERIOLOGY,
MUNICIPAL BUILDING, DELAWARE AVENUE,
BUFFALO, N. Y.

Directions for inoculating culture tubes with the exudate in cases of suspected diphtheria:

The patient should be placed in a good light, and, if a child, properly held. The swab is removed from its tube, and, while the

tongue is depressed, it is passed into the pharynx (if possible, without touching the tongue, and is rubbed gently, but firmly, against any visible membrane on the tonsils or in the pharynx, and then, without laying the swab down, it is immediately inserted in the blood serum tube, and the portion which has been previously in contact with the exudate is rubbed a number of times back and forth over the whole surface of the serum. This should be thoroughly but gently done, so as not to break the surface of the serum. The swab is replaced in its tube, and both tubes, their cotton plugs having been inserted, are returned to the box and sent to the collecting station. The blank forms of report which accompany each outfit should be completely filled out and forwarded to the station with the tubes.

Where there is no visible membrane (it may be present in the nose or pharynx) the swab should be thoroughly rubbed over the mucous membrane of the pharynx and tonsils, and in nasal cases, when possible, a culture should also be made from the nose. In little children, care should be taken not to use the swab when the throat contains food or vomited matter, as then the bacterial examination is rendered more difficult. Under no conditions should any attempt be made to collect the material shortly after the application of disinfectants (especially solutions of corrosive sublimate) to the throat. If any of these instructions have not been carried out, the fact should be carefully noted on the record blank.

List of stations where culture sets may be obtained free of cost: Department of Health, second floor municipal building, Delaware avenue; first precinct station house, corner Franklin and West Seneca streets; second precinct station house, Seneca street, east of Louisiana street; third precinct station house, Pearl street, near Chippewa; fourth precinct station house, Sycamore street, corner of Ash; fifth precinct station house, corner of Emily street and Delavan avenue; sixth precinct station house, Main street, south of Ferry (Cold Springs); seventh precinct station house, Louisiana street, near Elk; eighth precinct station house, 484 William street; ninth precinct station house, Seneca street, corner of Babcock; tenth precinct station house, Niagara street, near Jersey; eleventh precinct station house, Broadway, corner Bailey avenue; twelfth precinct station house, Genesee street, near Parade house; thirteenth precinct station house, corner Austin street and Joslyn place.

Return culture outfit to the station from which it was received before 3 P. M., or to the Department of Health by 6 P. M. A report will be sent by mail the following morning, or can be obtained by telephoning the Department of Health after 12 o'clock noon.

Depending on the results obtained from the examination of the cultures submitted for diagnostic purposes, one of the following

forms, which is printed on the back of a postal card, is filled out and mailed to the physician before 12 o'clock noon :

DEPARTMENT OF HEALTH,
BACTERIOLOGICAL LABORATORY.

BUFFALO, N. Y., .....189..

Dear Dr.....The examination of the cultures made by inoculating the tubes with the exudation from the throat of.....on..... shows the presence of the diphtheria bacilli.

The case is, therefore, one of true diphtheria.

ERNEST WENDE, M. D., *Health Commissioner.*
..... *Bacteriologist.*

DEPARTMENT OF HEALTH,
BACTERIOLOGICAL LABORATORY.

BUFFALO, N. Y., .....189..

Dear Dr.....The examination of the cultures made by inoculating the tubes with the exudation from the throat of.....on..... does not show the presence of any diphtheria bacilli.

The case is, therefore, not true diphtheria,[1] but pseudo or false diphtheria and no further cognizance will be taken of it by the department, unless by special request of the physician in attendance.

ERNEST WENDE, M. D., *Health Commissioner.*
..... *Bacteriologist.*

1. This conclusion is based on the supposition that the directions have been properly carried out and that the inoculation was made before the commencement of convalescence. After convalescence is established the bacilli often disappear from the exudate.

DEPARTMENT OF HEALTH,
BACTERIOLOGICAL LABORATORY.

BUFFALO, N. Y., .....189..

Dear Dr.....The examination of the cultures made by inoculating the tube with the exudation from the throat of.... .....on..... does not admit of an exact bacteriological diagnosis, for the following reasons :

*A.* The inoculation was made at so late a period in the disease that it is possible that the diphtheria bacilli, though now absent, were at an earlier time present.

*B.* The growth on the culture media was so scanty that it is probable that the inoculation was not properly made, or that some antiseptic had been applied to the throat shortly before obtaining the material for inoculating the tube.

*C.* The culture media was badly contaminated.

*D.* The serum in the tube was too dry to permit of the growth of the diphtheria bacilli.

*a.* Another culture is requested.

*b.* The case will be treated as one of diphtheria.

*c.* The case will be treated as one of false diphtheria unless the physician in charge of the case requests otherwise.

ERNEST WENDE, M. D., *Health Commissioner.*

..... *Bacteriologist.*

### NIAGARA WATER.

Besides the special work performed, pertaining to diphtheria, there is being made a daily examination of the Niagara tap water, with frequent examination of that coming directly from the reservoir, Niagara river and Lake Erie. It is the privilege of any physician or sanitarian residing in the city to submit such material to the department for bacteriological examination as may be thought detrimental to health.

### TUBERCULOUS SPUTUM.

The examination of sputum for the physicians is being fully established and the following blank of instruction will accompany the circular pertaining to diphtheria.

DEPARTMENT OF HEALTH,
BACTERIOLOGICAL LABORATORY,
BUFFALO, N. Y.

*Directions for Collection of Sputum for Bacteriological Examination in Pulmonary Tuberculosis.*

Sputum should be collected only in clean, wide-mouthed, well-stoppered bottles, with a capacity of at least four ounces.

Care should be taken that bronchial and not pharyngeal secretion is collected, and the expectoration discharged early in the morning is to be preferred. If the expectoration is scanty the entire amount discharged in twenty-four hours should be collected.

Depending on the result obtained from the examination of sputum for tuberculosis, one of the following blanks is filled out and mailed to the physician who submitted the sample.

DEPARTMENT OF HEALTH, BACTERIOLOGICAL LABORATORY,
MUNICIPAL BUILDING, DELAWARE AVENUE,

BUFFALO, N. Y., .....189..

Dear Dr .....The examination of the sputum from ..... received on .....shows the presence of the tubercle bacilli.

The case is, therefore, one of pulmonary tuberculosis.

ERNEST WENDE, *Health Commissioner.*

..... *Bacteriologist.*

DEPARTMENT OF HEALTH, BACTERIOLOGICAL LABORATORY.
MUNICIPAL BUILDING, DELAWARE AVENUE.

Buffalo, N. Y., .....189..

Dear Dr.....The examination of the sputum from ..... received on.....does not show the presence of any tubercle bacilli.

It is not to be assumed, however, from the result of this examination, that the case is not one of possible pulmonary tuberculosis, if the family history and clinical symptoms indicate such disease, for frequently in this disease tubercle bacilli are at times absent from the sputum, and the disease can only be excluded if repeated examinations of sputum fail to show the presence of bacilli. If this case is still regarded as possibly tuberculosis, other specimens should be sent for examination.

It should be kept constantly in mind, that the demonstrations of the presence of tubercle bacilli in the sputum proves conclusively the existence of tuberculosis, but the absence of tubercle bacilli, or the failure to find them microscopically, does not exclude the disease.

ERNEST WENDE, M. D., *Health Commissioner.*

..... *Bacteriologist.*

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## PEDIATRICS.

Reported by MAUD J. FRYE, M. D.

### PYREXIA IN ACUTE DISEASES OF CHILDHOOD.

IN THE March number of *Archives of Pediatrics* Dr. C. G. Jennings, of Detroit, considers the treatment of pyrexia in the acute diseases of childhood. Aconite, the bath and the synthetic antipyretics are the remedies discussed. The method of administration and indications for use of each of these remedies are so well set forth that a considerable extract from the article is here given.

Aconite is best given for the control of pyrexia, after the method of Ringer—to a child of three years of age from one-sixth to one-quarter of a drop of the tincture should be given every fifteen minutes for the first hour and every hour after that for ten

or twelve doses ; then the cardiac sedation may be maintained by the same dose every two, three or four hours.

The most generally useful method of applying water is by the full tub bath. For the treatment of pyrexia in general, a bath, beginning at a temperature of 95° and gradually reduced by adding cold water or ice until the temperature of the water is 85°, is the most generally useful. Children endure cold badly and they should be carefully guarded against the fright that a sudden immersion in cold water is almost sure to bring. The duration of the bath should be from five to ten minutes. During the continuation of it the cutaneous capillary circulation should be excited by vigorous rubbing. After the bath the child should be dried and placed in dry sheets. The application of an ice bag or cold water to the head during the bath is advisable. Should the child fail to react promptly, or shiver from the effect of the application, a small dose of hot whisky may be given to aid reaction.

The writer has used each of the three drugs, acetanilid, antipyrin and phenacetin, exclusively for many months in succession. Phenacetin has given, by far, the most satisfactory results. Clinicians generally agree that powerful effects, like cyanosis and cardiac depression, almost never occur with this drug in reasonable dosage.

The beginning dose of phenacetin should never be larger than one-half grain to each year of age. This dose may be repeated every hour for two or three doses. Guided by the thermometer or the relief of the distress and the breaking out of a gentle perspiration, the administration of the drug can be arrested, when the result is accomplished. The action of aconite upon the heart and circulation indicates its use in the beginning of all the acute diseases attended by local engorgements. Acute nasal and pharyngeal catarrh, tonsilitis, laryngitis, bronchitis, pneumonia and pleurisy, in their first stages, are particularly amenable to this drug ; but antipyresis and the relief of the unpleasant symptoms of fever in these conditions comes with aconite alone but slowly or not at all. Much better results can be obtained in all of the conditions by combining with the aconite one, two or three proper doses of phenacetin at hourly intervals at the height of the pyrexia. After the period of engorgement in pneumonia, or any grave inflammatory disease, aconite should have no place in its therapeutics and antipyresis should be accomplished by the bath or phenacetin, administered with very great care. Whenever there is doubt as to the strength of the heart the bath should be selected.

In the pyrexia resulting from the absorption of ptomaines and the acute indigestions of children, phenacetin is, *par excellence*, the remedy. It can be administered with calomel, bismuth and salol to suit the necessity of the case. In the pyrexia of acute intestinal catarrh, entero-colitis and cholera infantum the coal tar antipyretics or aconite should not be used. These conditions, attended as they are by vaso-motor paresis, are most scientifically treated by the bath. In cholera infantum this is the most powerful remedy we have to restore vaso-motor tone and reduce hyperpyrexia.

In the acute inflammations of the cerebral and spinal meninges phenacetin will be the antipyretic to administer. The cutaneous hyperesthesia and general irritability of these children preclude the disturbance attending the use of the bath and, furthermore, the coal tar antipyretics are powerful nerve sedatives. In meningitis and cerebro-spinal meningitis they promptly relieve the agonizing headache and neuralgic pains and induce quiet and refreshing sleep.

In the exanthematous fevers aconite is sometimes of value to depress the excited circulation in the beginning, but it is a drug that should be administered in these conditions with extreme caution. In measles the high fever attending the onset and acme of the eruptive stage can be well and safely controlled by phenacetin. In the high temperature and nervous disturbance and the internal congestion that attends the delayed appearance of the rash, the bath is by far the preferable measure.

In scarletina the cool bath should be one of the therapeutic measures in all cases. In cases of mild and moderately severe type, with a temperature from 102° to 103°, the administration of one or two doses of phenacetin, when the pyrexia becomes uncomfortable, is good treatment. In severe cases, the temperature rising to 104° or above, the bath is the remedy. Occasional administration of one or two doses of phenacetin, to prolong its antipyretic action, may be of value. In grave cases with a suppressed rash, high temperature and grave nervous phenomena the bath vigorously used will relieve symptoms and save life.

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It is claimed that, at least, ten per cent. of the patients at the chief dispensary of the City of New York suffer from tea-drunkenness. Its effects are noticed in connection with the nervous system.—*Maryland Medical Journal.*

# Abstracts.

## COMPLICATED HERNIA.

Dr. S. E. Milliken, of New York, in a paper upon this always interesting subject, read before the Alumni Association of the Northern Dispensary in November and subsequently published in the *New York Medical Journal*, of March 16, 1895, described some of the complications frequently met with in the diagnosis and treatment of inguinal hernia, which, while not dangerous, were nevertheless important. These were "adhesions," "undescended testis" and "hydrocele of the cord."

*Adhesion* is most commonly omental, the intestine being rarely involved. It often escapes detection owing to the absence of symptoms. It may be demonstrated by first reducing the hernia by taxis and then, by making traction on the cord, reproducing it. Radical operation is advised, the method of Bassini being preferred.

*Undescended testis* does not occur so frequently. It is readily recognized. To relieve it the testis must be freed from adhesions and anchored in the scrotum. The canal is reconstructed after the method of Bassini.

*Encysted hydrocele of the cord* is more often mistaken for hernia than any other condition. When small it can be reduced into the canal and will reappear if traction is made on the cord. It can readily be differentiated from hernia, however, by the absence of pain and the firmness of the swelling. Aspiration and the injection of carbolic acid is recommended.

### CONCLUSIONS.

1. Besides becoming strangulated, hernia may be complicated by adhesions, undescended testis and hydrocele of the cord.

2. Omentum often becomes adherent without causing any alarming symptoms and is the greatest obstacle in the way of successful mechanical treatment.

3. The cecum may take on adhesions under an ill-fitting truss and yet not become strangulated.

4. Undescended testis rarely exists alone and is usually complicated by hernia.

5. Encysted hydrocele of the cord, while often mistaken for hernia, may be only a complication.

36 West Fifty-ninth Street.

## A NEW MICROÖRGANISM DISCOVERED IN PORK.

By FRANK J. THORNBURY, M. D., Buffalo, N. Y.

In my work as microscopist in the Bureau of Animal Industry, I have commonly observed in various parts of the muscular system of swine, undergoing inspection with reference to the presence of trichine, a peculiar fungus. This fungus presented itself in the form of bundles of threads which have various colors and are intermingled with the muscle fibers, or found separate in a clump under the field of the microscope.

Out of 1,000 hogs inspected daily at the government abattoir, Buffalo, I have found fifty, on an average, to be infected by this organism.

The parts of the carcass from which samples are taken for the trichinous inspection are the diaphragm, neck and loin respectively, hence these were the parts in which I have usually found the fungus. As corroborated by Prof. Miller, of Berlin, this organism belongs to the saccharomyces or yeast group. It has very distinctive morphological characteristics and I here present for your inspection pure cultures in every media which we have at our disposal. At a later time I will detail the peculiarities of growth of this organism in the various media and give the results of my experiments upon animals. The former are particularly interesting and present contrast in many respects to any organism with which we have thus far had to deal. This can only be a brief outline of my contribution. I direct your notice to drawings of different culture tubes made by Mr. F. C. Busch. They are very accurate and serve to give you an impression of the luxuriant manner in which the organism thrives in artificial media, and of the coloration which it produces. I will later show you photo-micrographs, produced by Dr. Hill, and will have their duplicates thrown upon the screen for more detailed inspection. A pathogenic potency of this fungus —saccharomyces porcus—is shown by the destruction of white mice and rats twenty-four hours after inoculation. I have recovered the organism from the blood of these animals, which is found to be heavily laden.

My paper will appear in full in the official reports of the Bureau of Animal Industry, United States Department of Agriculture.

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The Massachusetts Board of Registration in Medicine received during 1894, 4,390 applications for licenses; 2,817 graduates applied and 200 who had practiced for three years; 294 applicants were rejected.—*Chicago Medical Recorder.*

# State Medical Examinations.

## INDORSEMENT OF LICENSES FROM OTHER STATE EXAMINING BOARDS.

UNIVERSITY OF THE STATE OF NEW YORK,
REGENTS' OFFICE, ALBANY.

MEMORANDUM.

THE laws, 1893, ch. 661, p. 148, provide that "applicants examined and licensed by other state examining boards registered by the regents as maintaining standards not lower than those provided by the article, . . . may without further examination, on payment of $10 to the regents and on submitting such evidence as they may require, receive from them an indorsement of their licenses."

*New Jersey*—The medical act provided May 22, 1894, requires in point of preliminary education "a competent common school education." This is interpreted as follows in the printed regulations of the state board of medical examiners: "Candidates must be graduated from an accredited literary or scientific college, or have completed satisfactorily not less than a three years' course in an accredited high school or academy or have received a preparatory education covering the following branches—namely, orthography, arithmetic, English grammar and composition, geography, history of the United States, algebra and physics, as certified by the state superintendent of public instruction of New Jersey." New Jersey, therefore, seems to require as a minimum only eight academic counts or two-thirds of one year in a high school, while New York requires fifty counts or three full academic years, except for those who actually pass regents' examinations, and even in these cases, as in dentistry, the New York examination standard will doubtless soon be advanced to a full high school course.

The secretary of the New Jersey board writes that the superintendent of public instruction will actually examine all who have not satisfactorily completed an accredited three-year academic course, but neither the law nor the published regulations fix any such requirement.

Though four years' study of medicine is required as compared with three years in New York, (in New Jersey one year's hospital service, or at least five years' reputable practice of medicine may

be accepted as equivalent to one year's study,) and though the New Jersey medical examinations include more distinct topics than are specified in the New York law, yet New Jersey requires only a total average in all subjects of 75 per cent., provided that in no topic the percentage falls below 50, while the New York law requires 75 in *each topic*. The New York state board of medical examiners, to which the question of the professional requirements in New Jersey was referred, reports that though the question papers are apparently more severe than in New York, yet the comparatively few failures indicate a much lower standard of rating answers. The New Jersey state board of medical examiners requires a fee of $50 for indorsement of licenses from other states, whereas our law fixes the fee at $10. Under these provisions a new York applicant desiring a license for both states would be forced to pay $75, or $40 more than would be the fee were he to take the New Jersey examination and then apply for a license in New York.

*Pennsylvania.*—The act approved May 18, 1893, (to take effect March 1, 1894,) provides in point of preliminary education as in New Jersey, a competent common school education. July 26, 1894, the secretary of the state board of medical examiners wrote that no maximum or minimum standard in point of preliminary education had been established, but that the state medical society would require students to appear before an examining committee of the respective county societies, who would examine them before they entered on the study of medicine. July 30, 1894, the secretary wrote that the standard had been fixed "at an average education as evidenced by examinations in geography, spelling, history, grammar, composition and arithmetic," and that the state board of medical examiners would require from the candidates for admission to the licensing examination a certificate of the medical examiners of the respective county medical societies or a diploma or a certificate from a college, academy or high school.

It will be seen that the Pennsylvania requirements are still lower and more indefinite than in New Jersey. The Pennsylvania law requires three years' study of medicine (after July 1, 1895, four years,) and three courses of lectures in a legally incorporated medical college, but the statute makes no exaction as regards the character of the medical school attended. The law is, in fact, modeled after the first New York law and has, therefore, the defects which were remedied in New York in 1893. The Pennsylvania medical examinations are not as comprehensive as those in

New Jersey, and require only a general average of not less than 75 per cent., and not 75 per cent. in *each topic* as in New York.

The great difficulty in other states is the lack of a central educational and administrative body to pass on preliminary requirements and to supervise and conduct the examinations.

It would not be at all just to New York students to indorse licenses from other states unless, as the statute requires, the standards of these states are fully as high in all respects as that maintained in New York. The New York statutes give the regents power in all these applications to require candidates to submit such evidence as may be demanded. Certainly no action should be taken toward the indorsement of licenses from any other state examining board till a committee from New York has actually assisted in conducting the professional examinations, and both preliminary and professional credentials and answer papers have been critically examined in New York. Even after a favorable report along these lines, probably no license should be indorsed from any other state examining board, without requiring that preliminary and professional credentials be submitted and also all answer papers written at the examination at which the candidate was licensed.

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# Selections.

## TO AVOID AND TO PREVENT CONSUMPTION.

The Ohio State Board of Health has promulgated (*Columbus Medical Journal*, July 24th,) the following rules on the subject of tuberculosis. We print them in full, as they are worthy of careful study.

How to prevent consumption: 1. In the house the expectorations of a consumptive patient should be received on bits of old cloth or Japanese paper and be burned at once or received in cuspidors or spit cups containing a solution of:

℞ Corrosive sublimate.....ʒ j.
Hydrochloric acid.....ʒ ij.
Water.....1 gallon.

Label, "Poison."

2. The clothing and bedding of the patient should be laundried separately and thoroughly boiled.

3. Sweeping should be done with a dampened broom or with wet tea leaves or sawdust on the floor, and the dust removed from the furniture, etc., with a cloth wet with the disinfectant solution.

4. Dishes, glasses, cutlery, etc., used by the patient should be scalded before using again.

5. It is better for the patient and safer for others that he sleep in a room alone and especially in a bed to himself.

6. The disease may be transmitted by kissing, especially kissing upon the mouth.

7. Admit an abundance of pure air and sunlight to the patient's room.

8. If the house is damp use proper means to secure dry foundation walls and basement.

9. On the street the patient should either use an expectoration flask (many such are made) or cloths or paper, to be burned as soon as possible. If a handkerchief must be used, place it in boiling water or in a disinfectant solution before the expectoration can dry.

To avoid consumption: 1. Eat meat cooked well done, as this will destroy the germ. Boiling will destroy the germs in milk, and young children, who are especially prone to tuberculosis of the bowels, should be given only boiled milk.

2. A mother with consumption should not suckle her child, as she may infect it through her milk.

3. Do not move into a house or sleep in a room in which a person has died of or been sick with consumption until it has been properly disinfected.

4. Avoid as far as possible occupying any length of time with a consumptive person a badly ventilated room, car or vessel.

5. If a tendency to the disease has been inherited, be specially guarded against all sources of infection. In addition, select an out-door occupation as free as possible from dust; use every means to secure a good physical development, particularly of the chest and lungs; select a dry soil for habitation and have living rooms freely ventilated and well exposed to direct sunlight.

6. In selecting a mate in marriage choose one free from any inherited scrofulous or tubercular taint.

We trust all persons reading this circular will aid in disseminating the information it contains. It is only by rousing the public to a realizing sense of the fact that consumption is communicable and preventable that we may hope to stay the ravages of this

disease, which alone slays more than all the other contagious diseases combined.

## INFECTED FEATHER BEDS.

The most unsanitary of all household articles is the feather bed. Quite too frequently it is an heirloom which has come down through many generations past, and at times it proves to be a genuine Pandora's box of germs, and malodors and other unsanitary things which have accumulated during the several generations in which it has done service for all sorts of people under all sorts of conditions. In the larger cities, convenient renovating establishments afford facilities for the purification of feather beds, pillows, etc., which to some degree remedies the evil of which we complain, but by no means altogether; for the feather bed, at best, contains a considerable amount of organic matter clinging to the quills and feathers, which, absorbing the waste of the body, is always undergoing decomposition, throwing off poisonous gases into the air and affording food for myriads of pestilential microbes which are ever in readiness to seize a favorable opportunity of infecting a weakened body, setting up suppurating processes and intensifying the effects of specific germs of various sorts which may become active in the body through the contagion.

Sometimes, also, a feather bed becomes infected by the contagious elements of scarlet fever, diphtheria, measles, smallpox, or other maladies, and constitutes thereby a most efficient vehicle for these dangerous disorders.

A case of this sort recently occurred in an Eastern town. The death of two children in Woburn, Mass., led to an investigation of the infection, which disclosed the fact that two weeks before the illness of the children a barrel containing a feather bed had been dumped upon a vacant lot. A number of children playing in the lot next day discovered the feather bed, opened it, and scattered the feathers over one another, thus effecting the most thorough exposure possible to whatever contagious element the feathers might contain. Within a few days five of these children were taken with scarlet fever; two died shortly afterward, and at the time the case was reported the third child was not expected to live. After the children were taken ill someone, perhaps the originally guilty party, burned the feather bed.

In such a case the neglect to destroy so efficient an agent of dissemination of disease before giving opportunity for such a

fatality as above reported, cannot be looked upon as anything less than criminal neglect and carelessness.

That this fact was appreciated seems to be evidenced by the subsequent burning of the bed after the children were taken sick. It is to be hoped that the guilty party was discovered, and proper legal punishment administered. It is no less a crime to destroy human life in such a manner than by neglect of proper care for a steam boiler, or by carelessly running a steamboat upon a rock, or, through neglect, allowing it to fire and burn up in mid ocean.—*Kansas Medical Journal*, March 9, 1895.

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## THE STRYCHNINE TREATMENT OF PULMONARY CONSUMPTION.

Next to rest and food, strychnine in large doses is the most important agent in the treatment of pulmonary consumption. Begin with 1-32 of a grain and gradually increase to 1-16, 1-10 or 1-6 of a grain or even larger doses, given four times a day. According to the author, it does not produce albuminuria or diabetes as is generally supposed. It alleviates the loss of appetite, the vomiting, the constipation, the nervousness and sleeplessness, the pain in the chest, the cough and expectoration, the dyspnea, the weakness of the heart, and acts as a blood-builder in an eminent degree. Its usefulness rests, of course, on its influence over the nervous system, and is another link in the chain of evidence which shows that in the great majority of cases pulmonary consumption is the direct result of primary disease of the pulmonary nerve supply.—*Thomas J. Mays, in College and Clinical Record.*

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The disposition to seize every opportunity to dose the children was beautifully illustrated by a physician's experience not long ago. He was hastily called to see a youngster of three years, who had fallen out ó̀f a window about four feet to the brick pavement below, landing on his head. When he reached the scene, the mother, with pardonable pride in her presence of mind and domestic resources, exclaimed: "Oh, doctor, I knew that something ought to be done at once, so I gave him two teaspoonfuls of castor oil."—*American Med. Compend.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. MAY, 1895. No. 10.

## VAGINAL DOUCHING DURING THE PUERPERIUM.

THE question of employing antiseptic vaginal douching as a routine practice during the puerperium was discussed by the American Association of Obstetricians and Gynecologists during its meeting at Toronto in September, 1894, by several eminent obstetricians. From the published reports we present herewith a condensed summary which may prove of interest to our readers, indicating that the pendulum of public opinion is swinging in an opposite direction to that which it took a few years ago; or, at least, obstetricians are less radical on the subject than formerly.

Professor Adam H. Wright, of Toronto, opened the discussion with a paper entitled, Should Antiseptic Vaginal Douching be made a routine practice during the Puerperium? Dr. Wright pointed out the position that Semmelweiss occupied with reference to modern antiseptic midwifery. As early as 1847, Semmelweiss demonstrated the puerperal fever was caused by the introduction of putrescent substances deposited in or about the genital tract of the parturient woman. Here was the first attempt to show that the so-called puerperal fever of the text-books is, in reality, puerperal septicemia. Investigations and experiments by Pasteur and Lister followed, giving additional weight to the doctrine of Semmelweiss and adding much to our knowledge of aseptic and antiseptic surgery and midwifery.

These doctrines were somewhat slow of adoption, but finally spread over the civilized world and mortality rates in the lying-in room were greatly reduced. In 1883, the New York Academy of Medicine held a remarkable discussion on the subject, in which Fordyce Barker and Gaillard Thomas were the chief disputants.

Every obstetrician is familiar with this great controversy. Dr. Wright says the douching wave reached its greatest height about that time, but since then a reaction has set in and now opinions are divided as to the utility of the measure in normal cases. Bacteriologists have taught us much on the subject, but have not yet proved definitely what forms of bacteria cause the poisoning. The important thing, however, from a clinical standpoint, to recognize is that septic matter when introduced from without by dirty fingertips, dirty instruments and from dirty surroundings of all sorts creates all the mischief. Professor Wright summarizes his opinions under four general heads, as follows :

1. Douching disturbs that perfect rest and quiet which are so desirable for a patient after labor.

2. Douching is unscientific on surgical grounds. After labor the utero-vaginal canal is bruised and wounded. On surgical principles the most important points in the treatment are rest, pressure, position and drainage.

3. Douching does not lessen the dangers accruing from the presence of bacteria in the vagina. This he acknowledges to be the most difficult contention to prove definitely. It is generally agreed, however, that in normal cases the vaginal mucus is strongly acid and is destructive to pathogenic cocci. Vaginal antiseptic injections may interfere with this normal acidity, and thus chemically lessen the resistance of the tissues to bacteria.

4. Douching is actually dangerous. It is apt to disturb clots and thus open avenues for infection ; to open lacerations of the cervix and vagina and thus prevent them from healing ; to wash bacteria into the uterine cavity and thus cause septic metritis.

Dr. Wright closes his admirable paper by stating that he has given his opinions as they now exist, formed after considerable observation and upon much experience, but that he does not declare them as final or unalterable, and that he is as anxious now as ever to learn something new about aseptic and antiseptic methods.

Professor William H. Taylor, of Cincinnati, followed with a short paper entitled, Shall the Vaginal Douche be used after Normal Delivery ? Dr. Taylor, too, has ceased the routine use of the douche in all normal cases, and is content with strenuously using asepsis,—cleanliness of patient, nurse and physician,—together with the application of a sublimated pad to the vulva immediately after delivery, its use to be continued until the danger of the introduction of germs has passed.

Recognizing the chemical reaction of the vaginal mucous membrane as important in determining the necessity of douching, he asserts his belief that the habitual use of test paper may be a safe guide in indicating the use of the douche. In other words, if the reaction is slightly acid, neutral or alkaline, the sublimate douche should be used, otherwise not.

Professor J. Edwin Michael, of Baltimore, continued the discussion under the head, Obstetric Antisepsis. He asserted that, as a rule,—one with only very rare exceptions,—a clean doctor, a clean nurse, a clean patient and cleanly surroundings will give a normal puerperium. He asserts that a normal woman should be allowed to have a normal labor and not be meddled with by even an examining finger, as in such cases palpation gives the necessary information. This is his rule in private practice; in hospital practice, however, where patients are subjected to examinations by students and nurses, he believes that both ante- and post-partum douches are necessary and also employs them after obstetric operations.

The singular unanimity of opinion of these three eminent teachers, all remote from each other and the opinion of each unknown to the other, offers much food for reflection, and we present this imperfect synopsis to our readers for the purpose of stimulating a further expression of opinion on the subject.

This discussion may be found in full in Volume VII. of the transactions of the association referred to.

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## TOPICS OF THE MONTH.

The Journal is gratified beyond measure at the generous treatment it is receiving at the hands of its contemporaries and the Buffalo newspapers in reference to its approaching semicentennial anniversary. Not only have they written us personal letters in great numbers, filled with pleasant words of commendation for both the Journal and ourselves personally, all of which we shall acknowledge by letter in due time, but they have overwhelmed us with kindness in their published notices. For all of this we beg them to accept our appreciative thanks.

It may not be out of place for us to say in regard to our proposed jubilee celebration, that it is not our intention to present barely one elaborate anniversary number, profusely illustrated and otherwise expensively published, but we shall issue to our patrons

a journal permanently enlarged and improved in every department, so that our subscribers, advertisers, exchanges, general readers and numerous friends will be benefited during all the remaining years which may be allotted to our journalistic existence. We believe this to be a more fitting testimonial to the substantial support we have received from our patrons during all these years, than to present them with a single jubilee number published on the lines hereinbefore indicated. The JOURNAL will be enlarged at the beginning of the next volume, August, 1895.

To one and all whose kind words have given us so much encouragement we again tender our most grateful thanks.

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THE establishment of free public baths has been occupying the attention of the health commissioner of Buffalo for some time. Many cities have already built institutions of this kind and their citizens are now reaping the sanitary benefits therefrom. While the common council of Buffalo has been delaying in the matter, the legislature has passed a bill, that has already become a law, making it mandatory upon cities of the first and second class to build free baths, while it permits cities below 50,000 inhabitants to raise money for a like purpose. We hope soon to see free public baths in full operation in Buffalo.

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AN INTERESTING freak of nature has lately occurred in New York. Two children were born to the wife of J. Koehler, of No. 342 East 42d street, in that city on Monday, April 15, 1895, that are attracting considerable attention in professional as well as non-professional circles. They are both girls and are attached to one another at the lower part of the spinal column and upper part of the pelvis. It is believed that the sacrum and coccyx are identical in both bodies. A singular feature of this case is, that the children, though joined at the back, are able to face to the front, owing to the elasticity of the structures at the point of union. They each have complete sexual organs and extremities that are separate and distinct. The father is thirty-five years old and the mother thirty. Both are reported to be healthy. At last accounts the twin babies and their mother are doing well. Not since the wonderful Siamese twins, who grew into advanced life, both married and had children, has such a phenomenon been recorded as this one of the Koehler babies. Considerable interest is manifesting in the

probabilities of a surgical procedure being competent to separate these children without jeopardizing life.

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Our esteemed contemporary, the *Maryland Medical Journal*, in recently commenting about state boards of medical examiners, makes some statements that we feel compelled to challenge. There is, perhaps, wholesome truth in its assertion that these boards have been made necessary by the lack of moral tone in college faculties. But when it asserts that there is an element of injustice in compelling a man to put himself a second time in peril of his future medical life after he has won his college diploma, we are of the opinion that it is a criticism which will not meet with general approbation.

Does our Maryland contemporary think it an injustice for a physician to be called upon to take a separate examination if he desires to enter the army or navy? Does it also think there is injustice in requiring separate examinations for hospital appointments? Surely the people of the state at large are entitled to quite the same degree of protection as our soldiers or sailors, or patients in hospitals. If it is wrong for the state to require the examination in the one case, it is equally so for the authorities to demand it in the others. We are sorry to take issue with the *Maryland Medical Journal*, which is so seldom at fault in its judgment and opinions.

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The dress reform agitation as applied to women has had full swing for some time in the medical journals. Suppose, therefore, though admitting there may be need enough for such reform from a sanitary standpoint, we let the women rest for a while and give the men a chance to be heard on the same question; for assuredly there is some need of improvement in the attire of the sterner sex. With the unsightliness of some of the present fashions we may not contend in this place, except insofar as they relate to health. But there are one or two points that bear strongly on the latter question that we wish to speak of in condemnation. The tight shirt band and high standing collar are not only abominations, but contribute to provoke headaches, disturbances of vision, vertigo and other cerebral perturbations. These reacting on the digestive and circulatory systems, may lay the foundation of, or excite into action, innumerable maladies that otherwise might go unexplained in their etiology.

Another unsightly as well as injurious fashion prevails with reference to foot dress. The "toothpick" shoe is not only a mechanical deformity, but it provokes corns, bunions and other foot diseases that are not to be regarded lightly.

Furthermore, if men would stand erect in submitting to the measurements of their tailors, they would obtain suits that would permit of better chest expansion and thus increase the cubic air space allotted to their breathing organs. These are a few injurious features of the prevailing fashions for men that need correction.

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The so-called faith-cure has met with a reverse in Dayton, O., that ought to open the eyes of believers in the fad. The *Cincinnati Lancet-Clinic*, of March 30, 1895, devotes an editorial to the episode from which we learn that the case referred to was that of a child suffering from tuberculous meningitis. Through the influence of relatives it was treated by faith-cure methods until death occurred. We cannot do justice to the case in a more befitting manner than to quote the *Lancet-Clinic's* own words in commenting on the affair, which are as follows:

During the course of the disease those having charge of the little patient did not comprehend or know the nature of the malady, but persisted in the idiotic delusion that there is no such thing as pain and disease. Every day during the early history of the case the child was taken out riding as though nothing was the matter. From first to last no medicines were given, or other treatment that would alleviate the sufferings of the patient. In mercy, death came to the child's relief. The next link in the history was a coroner's inquest and a post-mortem examination, which revealed the fatal nature of the malady.

Here was an instance of cruelty and bigotry which makes some parties guilty of a most heinous crime. The broad charity and humanitarianism of the present day is sufficient to provide every man, woman and child with support and scientific medical attention during sickness. In this instance no attempt was made to secure the advantages of what was to be had for the asking. These people were not financially poor. They were bigots to the extent of criminality. There must be a law somewhere on the statute books of the state that will take cognizance of such procedures. In this instance there should be a rigorous enforcement of its provisions, because, so far as we are able to learn, there were not even shadows of extenuating conditions and circumstances.

Unfortunately, there are some people so constituted as to be prone to the contraction of certain diseases; others are of a neurotic temperament and consequently more or less visionary and hysterical. These

visionary, hysterical people are the ready victims of such nonsensical perversions as faith-cure methods and constitute the capital stock in trade of a limited number of spiritualistic fanatics and neurotic perverts. The sun-dance of red-skin savages, with its accompanying sacrifices of human life, is equally justifiable with faith-cure and Christian science practices.

These words deserve to be carefully weighed and pondered by every believer in this rash nonsense which would be ridiculous if it were not so often criminal.

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## Personal.

DR. S. W. WETMORE and his wife, Mary B. Wetmore, M. D., formerly at 149 Franklin street, Buffalo, having spent the most of three winters in San Diego, Cal., have returned and built a new house, which they are now occupying, at 30 Woodlawn avenue, corner Otis place. Hours, 8 to 10 A. M.; 1 to 3 and 7 P. M. Telephone, Bryant 327.

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DR. H. G. HOPKINS, formerly assistant physician at Willard State Hospital, announces his location at 220 Jersey street, Buffalo, where he will give special attention to nervous and mental diseases. Hours, 8 to 9 A. M.; 2 to 3 and 6.30 to 7.30 P. M.

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DR. JOHN PARMENTER, professor of anatomy and adjunct professor of clinical surgery in Buffalo University Medical College, has removed from 116 North Pearl street to 519 Franklin street, Buffalo.

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DR. F. W. HINKEL, clinical professor of laryngology in Buffalo University Medical College, has removed his office from 274 Delaware avenue to its former location, 305 Delaware avenue, Buffalo.

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DR. CHARLES E. CONGDON, of 1034 Jefferson street, Buffalo, has returned from a six months' absence in Europe, and has again taken up his professional labors.

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DR. WILLIAM G. RING, of 364 Niagara street, Buffalo, who has been spending some time in Europe, has recently returned and resumed his professional work.

## Hospital Notes.

The Samaritan Hospital for Women, Montreal, was thrown open for patients January 17, 1895. It is non-sectarian, and supported entirely by voluntary contributions, of which latter enough were handed in during the first month to carry on the work during a whole year. It is the only special hospital for diseases of women in Montreal, and will be molded on the pattern of the famous New York State Woman's Hospital in New York City. It is managed by a board of thirty of the principal ladies of the city, assisted by an advisory board of three laymen and three physicians. The staff consists of Sir James Grant, M. D., K. C. M. G., consulting physician; Wm. H. Hingston, M. D., LL. D., consulting surgeon; A. Lapthorn Smith, B. A., M. D., M. R. C. S., England, surgeon-in-chief; H. Lionel Reddy, C. M., M. D., surgeon; S. F. Wilson, C. M., M. D., assistant surgeon and registrar; Dr. Sylvester, assistant surgeon, and Dr. Letellier de St. Just, assistant surgeon.

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The Buffalo General Hospital has recently issued its thirty-sixth annual report, which is for the year 1894. It includes the report of the Ladies' Hospital Association, and the Training School for Nurses. It shows the prosperity and successful conduct of an institution that ought to be near the hearts of our citizens. It is to be hoped that the new hospital project will take substantial shape before another year passes.

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## Society Meetings.

The Third International Congress of Dermatology will be held in London, August 4 to 8 inclusive, 1896, under the presidency of Mr. Jonathan Hutchinson. The vice-presidents for the United States are: Dr. Duhring, of Philadelphia; Dr. White, of Boston; Dr. Hyde, of Chicago; Dr. Bulkley, Dr. Keyes and Dr. Fox, of New York. The treasurer is Mr. Malcom Morris. Dr. J. J. Pringle, 23 Lower Seymour street, London, W., is the secretary-general and Dr. George Thomas Jackson, of 14 East Thirty-first street, New York, is secretary for the United States.

The following are the regulations of the congress:

1. All duly qualified medical men, British or foreign, or others interested in science invited by the council, who shall have paid

the fee of £1[1] sterling, and who shall have enrolled themselves shall be members of the congress and entitled to the volume of transactions.

2. The official languages of the congress shall be English, French and German, but with the permission of the president, members may express themselves in the language in which they are most familiar.

3. The proceedings of the congress shall be embodied in a volume of transactions, edited by the executive council.

4. Communications relative to membership, papers or other matters connected with the congress, should be addressed to the secretary-general, Dr. J. J. Pringle, 23 Lower Seymour street, London, W., or to one of the foreign secretaries.

5. The fee for membership shall be payable in London at or before the opening of the congress.

It will greatly facilitate the work of the executive if the fee is forwarded as soon as possible after the 1st of May, 1896.

6. Members who are unable to attend the congress shall receive the volume of transactions.

7. The subjects treated of shall be of two orders :

(1) Those selected beforehand by the executive council and introduced by gentlemen chosen for that purpose by the council.

(2) Those selected by individual members themselves.

8. Subjects selected for debate by the council shall take precedence over those selected by the members.

9. The sittings of the congress shall take place from 11 to 1 in the forenoon and from 3 to 5 in the afternoon of each day.

10. There shall be clinical demonstrations of patients every morning from 9 to 10.30 and every afternoon from 2 to 3.

11. Members contributing papers must submit an abstract of them to the secretary-general on or before the 1st of May, 1896, which will be printed either in full or in part and embodied in the general program of the congress which will be distributed at its opening.

12. At every debate precedence will be given to gentlemen who have communicated beforehand their intention to take part in it.

13. No papers lasting more than twenty minutes will be permitted. Speeches will be strictly limited to ten minutes each.

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1. The equivalent of £1 sterling is : French, 25 francs ; German, 20 marks : Italian, 25 lire ; American, $5.

Manuscript of the papers read must be left with the secretary-general before the end of the sitting. The executive council shall decide as to the entire or partial publication of such papers in the transactions of the congress.

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The Ohio State Medical Society will hold its next annual meeting at Columbus, May 15, 16 and 17, 1895. This will also be its semi-centennial anniversary, which the society proposes to celebrate in a befitting manner. An interesting program is preparing, and members of the profession from other states are cordially invited to attend. The president of the society is Dr. N. Kinsman, of Columbus, and the secretary is Dr. Thomas Hubbard, of Toledo.

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The American Medical Publishers' Association will hold its second annual meeting at the Eutau House, Baltimore, May 6, 1895. Dr. Landon B. Edwards, of Richmond, is president and Mr. Charles Wood Fassett, of St. Joseph, is secretary. Medical editors, publishers and business managers are cordially invited to attend the meeting.

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The American Medical Association will hold its forty-sixth annual meeting at Baltimore, May 7th, 8th, 9th and 10th, under the presidency of Dr. Donald Maclean, of Detroit. Dr. George H. Rohé, of Baltimore, is assistant secretary and chairman of the committee on exhibits.

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The Association of Military Surgeons of the United States, as previously announced in the Journal, will hold its next annual meeting at Buffalo, Tuesday, Wednesday and Thursday, May 21, 22 and 23, 1895, under the presidency of Brigadier-General George M. Sternberg, surgeon-general of the U. S. Army. The object of the association is to promote and develop military medicine, surgery and hygiene in every possible way. Membership is open to all commissioned medical officers in the service of the United States or of the several states and territories upon the payment of $5, annual dues.

The association, it will be observed, is not hampered by the code of ethics, but welcomes scientific men who are in the public services. It has now 250 members residing in thirty-five states. Applications for membership should be made to the secretary, Lieutenant-Colonel Chancellor, M. D., 515 Olive street, St. Louis,

Mo., giving full name, rank and address and enclosing fee of $5.00.

Major A. H. Briggs, M. D., surgeon of the 65th Regiment, N. G., S. N. Y., 267 Hudson street, Buffalo, is chairman of the committee of arrangements. Dr. Briggs is an executive officer of skill and capacity and under his guidance elaborate preparations are making for the entertainment of the visitors. The headquarters of the committee have been established at the Hotel Iroquois and a number of sub-committees have been appointed.

Subscriptions for the entertainment of the guests are solicited and these should be addressed to Dr. A. A. Hubbell, chairman of the finance committee. Public-spirited citizens should not be slow in sending in their contributions and thus indicate their pride in Buffalo and a desire for its prosperity.

The scientific program was published in the April number of the JOURNAL. The sessions will be held at the Star Theatre.

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THE Medico-Legal Society announces that it will hold a medico-legal congress at or near the City of New York during the last week of August or first week of September, 1895, (time and place to be hereafter announced,) open to all students of medical jurisprudence, under the charge of a committee of arrangements, composed as follows: Ex-Surrogate Rastus S. Ransom, chairman; Clark Bell, Esq., secretary; George Chaffee, M. D., treasurer; Moritz Ellinger, Esq., H. W. Mitchell, M. D., Constantine J. MacGuire, M. D., Prof. A. M. Phelps, M. D.

An enrolling fee of $3 will be required of each member to aid in the expenses and the publication of the bulletin of the congress, to be sent each member free.

1. The department of medico-legal surgery will be under the charge of the officers of the section on medico-legal surgery. Granville P. Conn, chairman, of Concord, N. H.

2. The department of psychology and psychological medicine will be under the charge of the officers of the psychological section. Prof. Elliott Coues, chairman, Washington, D. C., and sub-committees.

(1) Sociology and criminology will be in charge of a sub-committee, of which Hon. Moritz Ellinger will act as chairman.

(2) Legal responsibility of the inebriate will be in charge of a sub-committee, of which T. D. Crothers, of Hartford, Conn., wil act as chairman.

(3) The chairmen of sub-committees of mental medicine and other psychological and medico-legal branches and departments will be hereafter announced.

3. Microscopy in forensic medicine. Prof. M. C. White, of New Haven, will act as chairman of sub-committee.

4. Chemistry will be in charge of a sub-committee of which Prof. H. A. Mott, LL. D., will act as chairman.

5. Dr. Paul Gibier will act as chairman of the department of bacteriology in medical jurisprudence. The roll of members, the official program, the title of papers and the various officers, committees and sub-committees will be forwarded to all members by circular and announced in the *Medico-Legal Journal* and the lay and medical press.

A general invitation to all persons interested in the science of medical jurisprudence is extended and the members of the society, active, corresponding or honorary, who wish to enroll will forward their names and the enrolling fee to the secretary or treasurer. A considerable number of papers have already been secured and the interest already taken in the movement warrants the expectation of a large and influential meeting of the friends and students of forensic medicine on the occasion.

A formal and official circular will be issued later and all persons contributing papers will please forward their titles to the secretary to enable proper classification to be made for the formal circular.

H. W. MITCHELL, M. D., *President.*
CLARK BELL, Esq., *Secretary.*

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## Medical College Notes.

THE annual meeting of the Alumni Association of the Medical Department of Niagara University will be held at the college building May 16, 1895, one session being in the forenoon and one in the afternoon. An interesting program has been provided, in which the profession is invited to participate. Papers will be read by Dr. Bentley S. Bourne, of Hamburg, N. Y.; Dr. Herman E. Hayd, of Buffalo; and Dr. Joseph M. Mathews, professor of surgery, clinical lecturer on diseases of the rectum, Kentucky School of Medicine, Louisville, Ky.

The commencement exercises of the college will take place the same date at the Academy of Music at 8 o'clock P. M. Prof. Crego

will give the valedictory address, and Rev. P. McHale, the new president of Niagara University, will deliver the charge to the graduates.

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Buffalo University Medical College announces its annual commencement exercises for Tuesday, April 30, 1895. The final examination before the curators, the Alumni Association meeting and graduating ceremonies occupy the entire day and evening. At the time of this writing (April 23d) the program had not been issued, but a detailed report of the proceedings will be made in the Journal for June.

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# Book Reviews.

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A System of Legal Medicine. By Allan McLane Hamilton, M.D., Consulting Physician to the Insane Asylums of New York City, etc., etc., and Lawrence Godkin, Esq., of the New York Bar. With twenty-seven collaborators. Illustrated. Volume II. Large 8vo, pp. 738. Price per volume, cloth, $5.50; full sheep, $6.50. New York: E. B. Treat, 5 Cooper Union. 1894.

The second volume of this important work introduces itself with a chapter relating to the duties and responsibilities of medical experts, written by William B. Hornblower. This is a subject of much interest, is ably handled by the distinguished author and could have been considerably extended with much propriety.

The next chapter, a lengthy one, but divided into parts and subsection, is written by the medical editor-in-chief and is devoted to the consideration of insanity in its medico-legal bearings. Dr. Hamilton deals with his subject exhaustively as well as ably. This might be expected from the distinguished author's well-known skill and training as an alienist. This is a broad subject with many collateral relations, some of which are exceedingly intricate and difficult to differentiate as well as to understand. This section is supported by a long bibliographical list and index. Next comes a brief chapter by Judge Calvin E. Pratt on the mental responsibility of the insane in civil cases. This short article is full of interesting statements and references.

Insanity and crime form the subject of the next chapter, written by Dr. B. Sachs. Here is found a field for extended observation and comment that the author has occupied to good advantage. Dr. Sachs comments on the case of Guiteau in a manner which, to us, seems supremely silly. To declare at this late date that Guiteau was a pronounced lunatic, yet was hanged to satisfy the public conscience, and this in spite of the fact that he had a care-

ful and over-patient trial, prolonged beyond reason, and attended by the ablest alienists in the land, is, to our mind, an unnecessary display of sympathy with a bad cause.

The next chapter deals with the relations of mental defect and disease to criminal responsibility and is written by Louis E. Binsse. This section contains much that is instructive and gives the law in the several states bearing on the questions that it discusses.

Aphasia and other affections of speech is made the subject of another interesting chapter by Charles K. Mills. The medico-legal aspects of aphasia furnish a curious and somewhat complicated entanglement of law and medicine, but it is ably handled by the distinguished author. One of the most important subjects dealt with in the volume is the traumatic neuroses by Charles L. Dana. This is a description of the chronic nervous disorders that follow shock and injury. It possesses special interest to railway surgeons and ought to be studied carefully by every physician who assumes charge of an injured patient, where there is likely to arise a claim for damages. Eight and a half pages of bibliography follow this section, which indicates its importance in the literature of medicine.

The next chapter considers the effects of electric currents of high power upon the human body and is written by Allan McLane Hamilton and George DeForest ; then follows a short chapter on accident cases, by Lawrence Godkin ; next, one on mental distress as an element of damage in cases to recover for personal injuries ; then one on feigned diseases of the mind and nervous system, by Philip Coombs Knapp. This latter chapter is one of great importance to medical experts who appear in court in relation to alleged diseases and injuries resultant from accidents, where claim is made upon railway companies, municipal corporations and life or accident insurance companies. Malingering is often difficult of detection. It requires all the tact and acumen that skill and experience can furnish and then frequently escapes undetected.

An important section follows, devoted to birth, sex, pregnancy and delivery, which are ably discussed in all their medico-legal bearings, by Andrew F. Currier. In this section are developed some of the most important duties of the medical witness, their importance being in direct ratio to their delicacy. Abortion and infanticide form the subjects of the next section, which is written by Charles Jewett. Here again occur questions that often overtax the medical witness in his efforts to separate the false from the true. Genito-urinary and venereal affections in their medico-legal relations are next considered by F. R. Sturgis. This author always writes intelligently, concisely and instructively ; never more so, perhaps, than in this instance. Marriage and divorce appropriately follow and are considered by Simeon E. Baldwin in a short but pithy section. Sexual crimes form the subject in the next section, which is treated of by Charles Gilbert Chaddock. The literature on this subject has greatly increased of late and the author of this

chapter may be considered an expert on the subject. He writes intelligently and plainly upon a delicate subject, elevating it from disgust to science.

Surgical malpractice forms the concluding section of the book and is ably handled by George Ryerson Fowler. This distinguished surgeon and able writer has written something of interest to every physician called upon to treat surgical disease or injury.

A concise epitome of the laws relative to the insane has been made and published by H. P. Stearns and is added as an appendix to this book by his permission. An elaborate index covering both volumes, of fifty-eight pages length, closes the volume.

We have done very imperfect justice to this valuable treatise. We have not sought to analyze its work, but rather to point out its scope and indicate its importance. Medical jurisprudence has moved forward somewhat rapidly within the past few years, though it is proper to add that until lately it had not kept pace with other departments of medical science. We believe it to be a work that will contribute to further advance the science of forensic medicine.

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TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By Leading Authors of Europe and America. Edited by THOMAS L. STEDMAN, M. D., New York City. In twenty volumes. Volume I. Diseases of the Uropoietic System. New York : William Wood & Co. 1895.

The trend of medical literature is toward the writing and publishing of monographs. This is in obedience to a demand following a taste cultivated in the direction named, growing out of the tendency toward the practice of specialties. Even the old-fashioned work on the practice of medicine is subdivided and split up so that modern treatises on general practice do not cover the same ground or spread over the extent of territory that they did a quarter of a century ago. The teacher of medicine in the schools yields up to his colleagues in the several branches many of the subjects that he formerly felt called upon to discuss in the lecture room.

Since the appearance of Ziemssen's encyclopedic work about 1875, which is really a group of monographs on internal medicine, all works on practice have followed the trend that we have indicated above. The same publishers who brought out the English translation of Ziemssen are now accentuating the closing years of the nineteenth century by issuing a new cyclopedia of modern medicine, which it is proposed shall be an embodiment of the science of internal medicine as enriched by the most modern studies in chemistry, pathology and bacteriology. The laboratories of the greatest teachers of these sciences may well be made to yield everything that they contain of value, up to the last moment when each volume goes to press. The work will consist of twenty volumes, the first twelve being devoted to systemic

affections, including diseases of the skin and nervous system; while the last eight will be devoted to a consideration on the infectious diseases.

The first volume of this remarkable work is before us, and a careful examination of its contents justifies the assertion that the publishers have not promised too much in their prospectus. We have not space at our command at present to give the book an analytical review, nor indeed, had we the space, would it be necessary to do so. A simple statement of the contents of the volume, together with the names of the authors who discourse upon the several subjects treated of, is quite sufficient to give our readers all information needful to furnish a basis for a decision in reference to its purchase.

The first article, on diseases of the kidneys, is from the pen of Dr. Francis Delafield, of New York. The classification of kidney diseases which the author makes is extremely simple, and assists the reader greatly in arriving at a clear understanding of the morbid changes which these organs undergo. The diseases of the renal pelves, the ureters and the bladder are presented in two excellent articles, by Mr. Reginald Harrison, London. These are followed by two systematic and lucid treatises on the diseases of the prostate and male urethra, by Dr. G. Frank Lydston, of Chicago. The diseases characterized by changes in the urine (hematuria, cystinuria, chyluria, pyuria, etc.,) are discussed by Mr. E. Hurry Fenwick, of London, an acknowledged authority on these affections. The albuminurias of nephritis and diabetes mellitus are not included in this article. The closing treatise of the volume is one on the diseases of the female bladder and urethra, by Dr. Howard A. Kelly, of Baltimore. In this article the author describes at length his new method of examination of the bladder and ureters in the female, which, we believe, has never before been described in any text-book or treatise.

The illustrations, of the first and last articles especially, are beautiful in design and execution.

It may seem at first somewhat odd to call a treatise, based upon the experiences of the present century, the Twentieth Century of Practice, but it is only a name after all and may serve as well as any other.

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Obstetric Surgery. By Egbert H. Grandin, M. D., Obstetric Surgeon to the New York Maternity Hospital; Gynecologist to the French Hospital, etc.; and George W. Jarman, M. D., Obstetric Surgeon to the New York Maternity Hospital; Gynecologist to the Cancer Hospital, etc. With eighty-five illustrations in the text and fifteen full-page photographic plates. Royal 8vo, pp. 220. Extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street. 1894.

The practice of obstetric surgery has only lately taken its place as a science. Ten or twelve years ago it was limited to a few

mechanical operations that were very often unsuccessful because of want of attention to proper aseptic and antiseptic details. Now, thanks to the improved technique resulting from a better understanding of the principles of clean surgery, there is almost no limit to the successful use of the knife in the lying-in chamber. Every obstetrician must be prepared to do a Sänger or Porro-Cesarean section, symphysiotomy or any other emergency operation.

The necessity for this sort of instruction imposes the duty of preparing text-books devoted especially to surgical obstetrics. The volume before us is a pioneer in this kind of literature. It possesses many valuable points. The introductory chapter, devoted to asepsis and antisepsis, is very good, but might have been much extended with propriety. Obstetric dystocia and its determination is well handled in Chapter I. Especially to be commended are the illustrations giving the different varieties of deformed pelvis. All the lesser degrees of obstetric surgery, which may be called minor, such as artificial abortion, the induction of premature labor, application of the forceps and the employment of version are very well handled; but the major procedures in surgical obstetrics—namely, symphysiotomy and Cesarean section, are hardly up to the standard we might expect in such a work. The authors have hardly risen to the importance of their subjects in this department. These chapters should have been written by practical surgeons, men who have opened the abdomen hundreds of times, and especially by an author who has made hysterectomy a study and who has successfully performed Cesarean section a number of times, and who can point to a series of completed Porro operations without undue mortality. We hope to see future editions of this work improved in respect to the consideration of major surgical operations in obstetrics.

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DIFFICULT LABOR: A guide to its management, for Students and Practitioners. By G. ERNEST HERMAN, M. B., Lond., F. R. C. P., Senior Obstetric Physician to the London Hospital; Physician to the General Lying-in Hospital; President of the Obstetrical Society of London; Examiner in Midwifery to the Royal College of Surgeons; Late Physician to the Royal Maternity Charity. Crown octavo, 442 pages, 162 illustrations. Price, muslin, $2.25. New York: William Wood & Company. 1894.

There is no more important subject connected with obstetrics than that of the management of difficult labor, nor is there one on which the student or young practitioner stands in greater need of practical instruction. No matter how thorough teachers may be, there is always need of some safe book of reference that may guide during the early years of practice. The text-books of the period are inadequate to meet the requirements of a higher and more perfected order of obstetrical education on this point. They perplex the learner by telling him too many things that he may do without informing him which is best. There is every reason why this

branch of obstetrics should receive special treatment in a separate treatise by an experienced obstetrician.

The author of this work has had just such an experience, one larger than that of most persons, in the management of difficult labors, which fits him in an eminent degree to give practical instruction on the subject named. He does not render the treatise cumbersome by describing the many different things that may be done, but he tells us clearly and directly what he thinks is best to do in dealing with each complication of labor, and the reasons why he thinks so.

The book is concisely written, dogmatic in style, but not unduly so when the object of the writer is considered, and is well illustrated. It should be found within easy reach of every man who attempts the practice of obstetrics, while teachers will find it vastly useful in aiding to methodize their instruction. Colleges will, of course, adopt it as one of the text-books in the department of obstetrics.

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THE PRINCIPLES OF SURGERY AND SURGICAL PATHOLOGY. General Rules Governing Operations and the Application of Dressings. By DR. HERMANN TILLMANNS, Professor in the University of Leipzig. Translated from the third German edition by JOHN ROGERS, M. D., New York, and BENJAMIN TILTON, M. D., New York. Edited by LEWIS A. STINSON, M. D., Professor of Surgery in the University of the City of New York, Medical Department. With 441 illustrations. Octavo, pp. viii.—800. New York: D. Appleton & Co. 1894.

This author strikes right into the subject of his treatise in the first chapter of his book, in which he gives minute directions for the preparation of an aseptic surgical operation; and in his next chapter he considers anesthesia with much elaboration. These two chapters deserve careful study.

It was a wise combination of subjects in considering the principles of surgery and its pathology in the same treatise. It enables the surgeon to refer to both branches of the subject without loss of time and each serves to accentuate the importance of the other. Not since Billroth's classic treatise on surgical pathology, that appeared some twenty-three years ago, has there been a more satisfactory exposition of surgical pathology than here given by Tillmanns. It is brought down to the immediate present under the light afforded by the most modern researches in bacteriology. A student should be taught pathology before he is instructed in surgical diseases and injuries. These latter he will then understand with a clearness that could not be possible if the method of teaching were reversed.

The editor and the translators appreciating this fact have duly emphasized it in bringing out and making available as a text-book one of the best treatises on the principles of surgery and surgical pathology that has yet been written.

It is impossible in the space now at our disposal for us to do

more than express our opinion of this excellent work and to commend it to student and practitioner as a safe and scientific guide, which we do here and now.

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INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Genito-urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by JUDSON DALAND, M. D. (Univ. of Penna.), Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania ; Assistant Physician to the University Hospital ; Physician to the Philadelphia Hospital and Fellow College of Physicians, Philadelphia. J. MITCHELL BRUCE, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, Therapeutics at the Charing Cross Hospital. DAVID W. FINLAY, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen ; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary ; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume IV. Fourth series. 1895. Royal 8vo, pp. x.—365. Philadelphia : J. B. Lippincott Co. 1895.

The only Buffalo contributor to this volume is Dr. Matthew D. Mann, who lectures on gonorrheal salpingitis.

Beside this, we would call attention to a lecture on mania, by Dr. George H. Rohé, of Baltimore, and one on forms of insanity, by D. C. B. Burr, of Flint, Mich.

A well-illustrated lecture, that possesses considerable interest, on lateral curvature of the spine, is given by Dr. Reginald H. Sayre, of New York. Sir Dyce Duckworth, of London, presents an instructive lecture on jaundice from obstruction of the common bile duct. A number of illustrated surgical lectures appear in this volume, which is uniform with its predecessors in size, type and binding, and closes the fourth series.

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A COMPEND OF THE PRACTICE OF MEDICINE. By DAVID E. HUGHES, M. D., Chief Resident Physician Philadelphia Hospital ; Physician-in-Chief, Insane Department, Philadelphia Hospital, etc., etc. Fifth Physicians' edition, thoroughly revised and enlarged. Including a very complete section on skin diseases and a new section on mental diseases. Small 8vo ; pp. viii.—568. Price, $2.50. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1895.

The demand for this work in the past has been sufficient to exhaust four editions. Hence it may be considered as having an established place in the literature of medicine. There is no doubt but that the present methods of teaching are such as to demand the use of compends, and this one is most excellent in its plan and consideration of the subjects that belong to the practice of medicine. It was originally designed as an aid to students, to be

used, of course, in connection with larger treatises, but having outgrown its original purpose physicians may also find it a useful reference book.

In this fifth edition there has been a thorough revision, enabling the author to incorporate recent discoveries in medicine and add a section on mental diseases. The book is beautifully printed, is bound in black morocco with flexible covers and gilt edges, making it one of the handsomest medical books in appearance that we have seen.

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TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY. Twenty-fourth Annual Convention. Denver, June, 1894. Published for the society.

Though the Medical Society of the State of Colorado is but twenty-three years old, it publishes a volume of transactions that many an older state might envy. The material is excellent and the mechanical make-up of the volume is beyond criticism. Some of the subjects dealt with are unique and possess particular interest at this time. The new woman comes in for her share in the way of two papers that not only could she read with interest, but others who are studying into the causes and prevention of disease. Dr. Mary E. Bates, of Denver, read a paper on the new movement in dress reform and exhibited a number of women and children attired in this new costume.

Bicycle exercise for women was the title of a paper presented by Dr. Laura L. Liebhardt, of Denver. The value of the two papers could have been much enhanced by well-drawn illustrations. Dr. Walter A. Jayne, of Denver, read an interesting paper entitled the clinical examination of blood. This is a subject which should engage the attention of physicians in an increased degree.

This volume of transactions takes rank among the leading state society publications.

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A MANUAL OF DISEASES OF THE EAR, for the Use of Students and Practitioners of Medicine. By ALBERT H. BUCK, M. D., Clinical Professor of the Diseases of the Ear, College of Physicians and Surgeons, Columbia College, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary and the Presbyterian Hospital. Second revised edition. Illustrated. Small 8vo, pp. x.—458. Price, cloth, $2.50. New York: William Wood & Co. 1895.

The first edition of this manual was published in 1889 and reviewed by the JOURNAL of that year (Vol. XXVIII., 1888-9, p. 772). The book received general professional favor and a second edition is now presented, in which a new chapter has been introduced, entitled Analysis of Symptoms, some additional text has been added to the chapter on Chronic Purulent Inflammation of the Middle Ear, and the section devoted to a description of operations upon the mastoid process has been entirely rewritten and

very much amplified. In its present form the student has a trustworthy guide to the diagnosis and treatment of diseases of the ear, written by an experienced and conservative teacher and practitioner.

The previous review gives an ample description of this work and we need not repeat it here. But we desire to say, as was said then, that it "deserves unqualified praise." A. A. H.

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NOTES ON THE NEWER REMEDIES, THEIR THERAPEUTIC APPLICATIONS AND MODES OF ADMINISTRATION. By DAVID CERNA, M. D., Ph. D., Demonstrator of Physiology and Lecturer on the History of Medicine in the Medical Department of the University of Texas; formerly Assistant in Physiology, Demonstrator of, and Lecturer on, Experimental Therapeutics in the University of Pennsylvania, etc., etc. Small 8vo, pp. 253. Second edition, enlarged and revised. Price, $1.25. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

The first edition of this book was noticed in the JOURNAL for November, 1893. It now appears thoroughly revised, with many of its articles rewritten, thus bringing it forward to the end of 1894. The object of the book is to keep brief records of the applications of the newer remedies, especially those whose usefulness have stood the test of clinical investigation. New features of the present edition are paragraphs on physiological action and toxicology, as well as those on incompatibility and contra-indications. An index of diseases has been added in the interest of the general practitioner of medicine. It is an excellent little book of reference.

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CATALOGUE OF STODDART BROS., 84 Seneca street, Buffalo, N. Y., importers, manufacturers, wholesale and retail dealers in surgical instruments, trusses, braces, supporters, elastic stockings, batteries, crutches, operating tables, surgical chairs, orthopedic appliances, pharmaceutical preparations, strictly pure drugs and fine chemicals. Buffalo: Baker, Jones & Co. 1895.

The enterprising house of Stoddart Brothers is well known to every physician in Buffalo and the surrounding country. In addition to their large and extensive drug establishment, where everything wanted by either the physician or druggist can be obtained at wholesale or retail, they have the most complete surgical instrument department, for the manufacture, repair or sale of every sort and kind of instrument or surgical appliance, between New York and Chicago. This catalogue, which is well illustrated, is convenient for reference, and bespeaks a thrift and enterprise which might be expected by everyone who enjoys the personal acquaintance of the courteous proprietors. Those who do not happen to know them should make haste to visit their establishment, where they are sure to find everything wanted either in the drug or instrument line.

THE YEAR-BOOK OF TREATMENT FOR 1895. A Comprehensive and Critical Review for Practitioners of Medicine and Surgery. In one 12mo volume of 501 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co. 1895.

This book makes its eleventh annual appearance with reasonable promptitude. It is convenient to have the novelties of the year set in accessible form for reference and so arranged alphabetically that each subject sought may readily be found. This book conforms to its usual fashion in style and size and will be welcomed by all those who possess the previous volumes, as well as by a large number of recently made doctors who are anxious to keep pace with whatever is new and valuable in the practice of medicine. Whenever a searcher desires more complete information on any subject, he will find an excellent selected list of new books added at the end of the volume, that will enable him to obtain the information sought. The book possesses the merit of cheapness and usefulness combined.

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BREAD FROM STONES. A New and Rational System of Land Fertilization and Physical Regeneration. Translated from the German. Duodecimo, pp. 135. Price, 25 cents. Philadelphia, Pa.: A. J. Tafel, 1011 Arch street. 1894.

This is a neatly printed little book of 135 pages. It is claimed that if the theories propounded by the author of the volume before us were put in practice in this country, it would free the farmer from a heavy yearly expense for fertilizer; at the same time gradually bring back his exhausted fields to their original state and produce food on which health might be maintained.

J. A. M.

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## BOOKS RECEIVED.

Medical Gynecology. A Treatise on the Diseases of Women from the Standpoint of the Physician. By Alexander J. C. Skene, M. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital, etc., etc. Octavo, pp. vi.—529. With illustrations. New York: D. Appleton & Co. 1895.

Report of the Commissioner of Education for the Year 1891–2. In two volumes. Washington: Government Printing Office. 1894.

Annual Report of the State Board of Charities for the Year 1894. Transmitted to the Legislature March 25, 1895. Albany: James B. Lyon, State Printer. 1895.

The Treatment of Wounds, Ulcers and Abscesses. By W. Watson Cheyne, M. B., F. R. S., F. R. C. S., Professor of Surgery in King's College, London. In one 12mo volume of 207 pages. Cloth, $1.25. Philadelphia: Lea Brothers & Co. 1895.

Twentieth Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending June 30, 1892. Lansing : Robert Smith & Co., State Printers and Binders. 1894.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Genito-urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by Judson Daland, M. D. (Univ. of Penna.), Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania ; Assistant Physician to the University Hospital ; Physician to the Philadelphia Hospital and Fellow College of Physicians, Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen ; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary ; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume I. Fifth Series. 1895. Royal 8vo, pp. xii.—354. Philadelphia : J. B. Lippincott Co. 1895.

Manual of General Medicinal Technology, Including Prescription Writing. By Edward Curtis, A. M., M. D., Emeritus Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Medical Department of Columbia College, in the City of New York. Third edition, conforming to the U. S. Pharmacopeia of 1890. Pocket size (Wood's Pocket Manual Series), 245 pages. Price, $1.00.

Transactions of the Sixteenth Annual Meeting of the American Laryngological Association, held in the City of Washington, D. C., May 30, 31 and June 1, 1894. New York : D. Appleton & Co. 1895.

Eighth Annual Report of the Managers of the St. Lawrence State Hospital for the Year 1894. Albany : James B. Lyon, State Printer. 1895.

Ninth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Clarence M. Busch, State Printer of Pennsylvania. 1894.

Cod Liver Oil and Chemistry. By Peckel Möller, Ph.D., London ; Peter Möller, 43 Snow Hill, E. C. New York : W. H. Schieffelin & Co. 1895.

A Book of Detachable Diet Lists and a Sick-room Dietary. Compiled by Jerome B. Thomas, A. B., M. D. Price, $1.50. Published by W. B. Saunders, 925 Walnut street, Philadelphia. 1895.

Transactions of the Antiseptic Club. Reported by Albert Abrams, a Member of the San Francisco Medical Profession. Illustrated. Price, $1.75. New York : E. B. Treat, 5 Cooper Union. San Francisco : Johnson & Emigh. 1895.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume II. Nutritive Disorders. New York : William Wood & Co. 1895.

Index of Medicine. By Seymour Taylor, M. D., Member Royal College of Physicians; Senior Assistant Physician to the West London Hospital. In one large 12mo volume of 801 pages, with 35 engravings. Cloth, $3.75. Philadelphia: Lea Brothers & Co.

A Manual of the Modern Theory and Technique of Surgical Asepsis. By Carl Beck, M. D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York City, etc. Small 8vo, pp. 300. With sixty-five illustrations in the text and twelve full-page plates. Price, $1.25 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

La Pratique des Maladies du Cœur et de L'Appareil Circulatoire dans les Hopitaux de Paris. Aide-Mémoire et Formulaire de Thérapeutique Appliquée par Le Professeur Paul Lefert. Paris: Librairie J. B. Bailliére et Fil, Rue Hautefeuille, 19 près le Boulevard Saint-Germain. 1895.

Urinalysis, Including Blanks for Recording the Analysis and Microscopic Examination of the Urine. For Medical Practitioners, Life Insurance Examiners and Specialists. Arranged by Joseph C. Guernsey, A. M., M. D. Philadelphia: J. B. Lippincott Co. 1895.

## Literary Notes.

Albert Lynch, whose work is becoming so much more generally known to Americans through his drawings in *Scribner's Magazine* and his cover designs for *The Ladies' Home Journal*, is a Peruvian by birth, but of English parentage. He is thirty-three years of age, unmarried and lives in Paris. He commands the highest prices for his work, his smallest water-color paintings readily selling for $600 to $900 each. In 1893 he received the salon's first prize for his beautiful panel of "Spring," showing a single figure. Recently *The Ladies' Home Journal* acquired all publication rights to this painting, and it will serve as one of the cover designs for that magazine. The May issue of the *Journal* also has a design by Lynch, portraying his conception of a woman's ideal costume. A succession of other cover designs by Lynch will follow these two.

Medicine is the name of a monthly journal of medicine and surgery edited by Dr. Harold N. Moyer, of Chicago, that made its appearance in April, 1895. The first number is a handsome specimen of journalistic work and reflects much credit upon its accomplished editor. It is published in Detroit by George S. Davis, the well-known medical publisher. With Dr. Moyer and Mr. Davis associated interestedly in the magazine its success is already assured.

The April number of *Germania* completes its sixth volume and is accompanied with a complete index of its contents. We cannot too highly commend this magazine and would earnestly urge every student and teacher of the German language to subscribe for it. The perusal of its index will convince everyone that it is a treasure beyond price.

Volume VI. of this magazine contains eight standard German novels, carefully annotated and prepared for American students by eminent professors of German. It also contains about fifty fables and short stories by standard authors, supplemented by interlinear translations or complete vocabularies and notes. Numerous articles on grammar, literature, synonyms, pronunciation and spelling by well-known teachers of German are found in every number. It is the opinion of some of our leading college professors that *Germania* is the best effort yet made to assist the student of German and to interest him in his pursuit. The magazine is used as a regular text-book by the professors in the Universities of Chicago, California, Michigan, South Carolina, Syracuse, Northwestern University, etc., and in numerous normal and high schools. It is published by the Germania Publishing Co., of Boston, Mass. Subscription price, $2.00.

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The medical journal heretofore known as *Food* has changed its name to *The Journal of Practical Medicine.* It has also put itself into a new dress and presents, in its April issue, an improved appearance in every way.

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The Rio Chemical Company, of St. Louis, has issued and sent out to physicians an excellent map of the United States, suitable to have on an office wall. It also gives statistical information concerning the civil divisions of the world arranged by continents. Any physician who has not received one of these useful maps should address the publishers as above.

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Annales de l'Insitut Ste. Anne is the name of a new medical publication conducted by Dr. C. Jacobs, president of the Belgium Gynecological and Obstetrical Society and an honorary fellow of the American Association of Obstetricians and Gynecologists. It is published quarterly at Brussels and Number 1, Volume I., bears date of March 15, 1895.

Dr. Aug. C. Bernays, of St. Louis, has published an illustrated brochure, entitled Report of a Surgical Clinic. It contains the report of six or seven operations made by the author in the presence of members of the Mississippi Valley Medical Association en route to and from the Hot Springs meeting in November, 1894. Some of the cases involved unusual surgical procedures that tax a surgeon's skill and resource. Dr. Bernays is to be congratulated on his results in the series herein published.

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## Miscellany.

Medical Examinations in New York.—Examinations for license to practise medicine in this state are appointed to be held in 1895 as follows: May 14th to 17th, June 18th to 21st, September 24th to 27th, November 25th to 27th. The examinations are held simultaneously at New York, Albany, Syracuse and Buffalo. Each candidate is notified as to the exact place. The examinations at Buffalo are held in the Library Building.

Daily Program: Morning, 9.15 to 12.15—Tuesday, Anatomy; Wednesday, Chemistry; Thursday, Obstetrics; Friday, Therapeutics. Afternoon, 1.15 to 4.15—Tuesday, Physiology and Hygiene; Wednesday, Surgery; Thursday, Pathology and Diagnosis.

For further information, address James Russell Parsons, Jr., Director of Examinations, Regents' Office, Albany.

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Partnership.—A regular graduate, aged 28, would like to correspond with a physician desirous of engaging a partner or qualified assistant in his practice. Address E., care Buffalo Medical and Surgical Journal.

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The New York Physicians' Mutual Aid Association has recently issued its twenty-sixth annual report, which is for the year 1894. There has been a net gain of ten members during the year, and one loss was paid, without the necessity of an assessment, from funds on hand. There were but twelve deaths during 1894, as against eighteen during 1893. Taken altogether the association has not only held its own during a year of financial depression, but has actually gone ahead. The officers are to be congratulated on such remarkable results.

Buffalo Medical and Surgical Journal

Vol. XXXIV. JUNE, 1895. No. 11.

# Original Communications.

## THE ETIOLOGY, DIAGNOSIS AND TREATMENT OF DIPHTHERIA.[1]

By W. L. CONKLIN, M. D., Rochester, N. Y.

The subject of diphtheria is so familiar to all that it would seem a hopeless task to undertake to present any new thoughts in relation to it for your consideration. Much that is said must be a repetition of what has already been said; but at the present time, when we hear so frequently of methods of diagnosis and treatment which are of comparatively recent origin, it may be of interest to review the older ideas and clinical experiences, and by a comparison of results make an effort to determine how much advance has recently been made in the direction of greater accuracy in our knowledge of the origin of this dread malady, and increased facilities for its prompt diagnosis and successful treatment. While there is very much of interest pertaining to other phases of the subject, I shall confine myself, as far as possible, to the consideration of the etiology, diagnosis and treatment.

For over twenty-five years pathologists have believed in the germ origin of diphtheria, and from time to time have thought that they had discovered the specific microbe. In 1868, Oertel and others conducted experiments which convinced them that the micrococcus or globular bacterium was the cause of the disease. Five years later, Cohn named it "micrococcus diphtheriticus." About the same time, Klebs and Eberth regarded septic micrococci and the so-called diphtheritic micrococci as identical. The same opinion was expressed by Drs. Wood and Formad ten years later, after experiments made by them for the National Board of Health. In 1874, Billroth asserted that "the so-called pathogenic bacteria

1. Read before the Rochester Pathological Society, March 14, 1895.

of diseases are positively identical with those found in putrefying dead tissues." This assertion was also made by Drs. Curtis and Satterthwaite, after investigations and experiments made for the New York Board of Health. It was evidently necessary to look further for the specific germ of diphtheria.

In 1883, Klebs described a bacillus which he found present in nearly all fatal cases of diphtheria. In 1884, the same bacillus was described by Löffler, who inoculated guinea-pigs with a pure culture, producing death with the characteristic lesions of diphtheria. Further investigation led to the conclusion that the bacilli remain, for the most part at least, at the point of local manifestation of the disease, and that the toxic symptoms are due to the production by them of ptomaines or toxines which are absorbed by the lymphatics.

The Klebs-Löffler bacilli are described by Thompson and Park and Beebe, as "somewhat shorter than the tubercle bacilli, but much broader, and with thickened or clubbed extremities" as a rule. They are straight or slightly curved and non-motile. The bacilli possess no spores, but have in them highly refractile bodies. With an alkaline solution of methyl-blue they stain in a peculiar and characteristic way, as certain oval bodies, situated in the ends or in the central portion, stain much more intensely than the rest of the bacillus.

In 1888, the investigations and experiments of D'Espine, Roux and Yersin added much valuable proof to that already secured. The two latter found that filtered cultures of diphtheria bacilli injected beneath the skin of guinea-pigs caused their death ; showing the virulence of certain products resulting from the growth of the bacilli. They also observed true paralysis following the injection in animals when a fatal result was sufficiently delayed. They draw the following conclusion : "The occurrence of these paralyses, following the introduction of the bacilli of Klebs and Löffler, completes the resemblance of the experimental disease to the natural malady, and establishes with certainty the specific *rôle* of this bacillus." Welch says : "All the conditions have been fulfilled for diphtheria which are necessary for the most rigid proof of the dependence of an infective disease upon a given microörganism — namely, the constant presence of this organism in the lesions of the disease, the isolation of the organism in pure culture, the reproduction of the disease by inoculations of pure cultures, and similar distribution of the organism in the experimental and the natural

disease." He adds : "In view of these facts we must agree with Prudden that we are now justified in saying that the name diphtheria, or, at least, primary diphtheria, should be applied, and exclusively applied, to that acute infectious disease, usually associated with a pseudo-membranous affection of the mucous membrane, which is primarily caused by the bacillus, called the bacillus diphtheriæ by Löffler."

If the Klebs-Löffler bacillus is essential to the existence of true diphtheria, so that the determination of its presence or absence in a doubtful case settles the question of diagnosis, then a great advance has been made in our knowledge of the disease, and one which cannot fail to be of the utmost practical importance. That we now have abundant evidence of such a relationship is very generally conceded, though still questioned by a few.

The importance of making a correct diagnosis, as early as possible, in throat troubles, cannot be too strongly emphasized. The more promptly the disease is recognized, the patient isolated, if necessary, and proper treatment begun, the greater the probability of recovery and smaller the danger of further infection.

If the physician is called to a well-marked case of pharyngeal diphtheria, after the pseudo-membrane has begun to form and toxic symptoms have appeared, there should be no difficulty in making a correct diagnosis at once. But, if called to this same case before there is anything characteristic in the appearance of the throat or alarming in the constitutional disturbance, he may find a condition present which will make him suspicious of serious trouble ; still, if he depends entirely upon the appearance of the throat, he may be unable to make a positive diagnosis until the characteristic membrane appears and there is evidence of grave general disturbance. Or, if the case be one in which the disease is primarily laryngeal or nasal, it is often very difficult to make an early diagnosis.

Some observers still believe that membranous croup is entirely distinct from laryngeal diphtheria, and so not contagious. If this be true, how important it is that such cases should be distinguished as promptly as possible from those which are true laryngeal diphtheria. Both are conditions of great danger to the patient, but, if the theory of their distinct character is correct, one calls for isolation and stringent measures to prevent the spread of the disease, while with the other no such precautions are necessary. No doubt most cases of follicular tonsilitis may readily be distinguished from

diphtheria, even when the patches of secretion which occupy the crypts of the tonsil have coalesced. But who has not been uncertain as to diagnosis in such cases. That there are not a few cases of so-called pseudo-diphtheria, in which the macroscopic appearance of the membrane closely resembles that of true diphtheria, is now generally conceded. This condition is of frequent occurrence in cases of scarlet-fever and measles, and it is important to distinguish it from true diphtheria developing as a complication of those diseases.

Thus it appears that the early diagnosis of diphtheria is of great practical importance and that in the past it has been, in some instances, a very difficult matter. No one can read a report of one year's work in the New York bacteriological laboratory without being impressed with the evidence which it affords of the value of bacteriological examination of cases of diphtheria, not only as a means of diagnosis, but also for the purpose of determining when quarantine is no longer necessary. Such a report, written by Dr. William Park, bacteriological diagnostician and inspector of diphtheria, and Alfred L. Beebe, inspector of bacteriology, appeared in the *Medical Record*, September 29, 1894. It contains so much of interest relating to my subject that I shall quote from it freely.

From May 4, 1893, to May 4, 1894, a bacteriological examination was made of 5,611 cases of suspected diphtheria. The Klebs-Löffler bacilli were present in 3,255, absent in 1,540, and 816 were considered doubtful, owing to various deviations from regular methods in obtaining the cultures, although no diphtheria bacilli were present. It was concluded that about 60 per cent. of the cases were true diphtheria and 40 per cent. false or pseudo-diphtheria. In 1,625 cases of true diphtheria the age and mortality were ascertained. The number of cases increased with each year to the fourth. The mortality rate from the first to the fourth was 45 per cent.; from the fifth to the seventh 33 per cent.

Observations are recorded which have an important bearing upon the question of the identity or non-identity of membranous croup and laryngeal diphtheria. They are, in brief, as follows :

In 286 cases, 283 children and three adults, the disease was chiefly or entirely confined to the larynx or bronchi. In 229 of the 286 cases, 80 per cent., Klebs-Löffler bacilli were found. Seventy-three per cent. of these 229 cases showed no false membrane above the larynx. In fifty-seven cases no Klebs-Löffler bacilli were found. Of these, seventeen cultures were unsatisfactory. Excluding these, there were forty of

pseudo-diphtheria. Summary : Eighty per cent. of true diphtheria ; of the remaining 20 per cent., 14 per cent. only were certainly not diphtheria.

Up to the time these investigations were made, membranous croup had not been considered a contagious disease by the New York Board of Health, but the facts brought out resulted in a change in the sanitary code, June 6, 1894, by which the report of such cases was required. The same regulation was adopted by our own Board of Health January 19, 1894. In view of these facts it would seem a wise and conservative view of the subject to consider every case of true croup contagious, until the absence of the Löffler bacillus is proven by bacteriological examination.

The following statement is made regarding the reliability of such examinations for diagnostic purposes :

> In cases in which the disease is confined to the larynx or bronchi, and where, therefore, there is no visible exudate against which the swab can be rubbed, surprisingly accurate results can be obtained from the examination of cultures, but in a certain proportion of cases no diphtheria bacilli will be found in the first culture, and yet will be abundantly present in later ones, the bacilli having probably been coughed up more freely as the disease progressed. We believe, therefore, that absolute reliance for a diagnosis cannot be placed upon a negative result in a single culture from the pharynx in purely laryngeal cases.

The differential diagnosis between diphtheria and so-called pseudo-diphtheria is of great importance. The latter condition may be defined as an inflammation of the mucous membrane of the throat, accompanied by the formation of pseudo-membrane which resembles that of true diphtheria, in which the Klebs-Löffler bacilli are absent. Such cases are characterized by the presence of various forms of micrococci, especially streptococci, which are thought to be the cause of the disease, when associated with conditions favorable to the development of throat troubles. Various observers in Berlin, Paris, Switzerland, New York and Boston have found from 20 to 50 per cent. of pseudo-diphtheria among cases of suspected diphtheria. The difference of mortality rate in the two diseases is very striking. In hospital cases characterized by the presence of the Klebs-Löffler bacillus, the mortality rate has varied from 25 to 70 per cent. before the introduction of antitoxin, while in suspected cases in which this bacillus was absent it has varied from nothing to 20 per cent.

Among 450 cases of pseudo-diphtheria carefully investigated by the New York Board of Health, there were eleven deaths, a mortality of 2½ per cent. Forty-two of the 450 cases were associated with scarlet-fever. Of these, four died. Six were associated with measles and all of these recovered. One of the fatal cases was a man seventy years of age, who had a valvular lesion of the heart. Another adult died of septicemia. The larynx was affected in all of the five fatal uncomplicated cases in children under five years of age, and in three there was more or less broncho-pneumonia. One hundred and thirteen of these cases, occurring in 100 families, were carefully investigated in reference to the question of contagion. In only fourteen was the relationship with another case, so far as ascertained, such as to point to contagion as a probable cause. In nine of the 100 families more than one case occurred, but secondary cases seemed to develop as frequently when the patient was isolated as when no precautions were taken.

Careful investigation would seem to show that streptococci, in limited numbers, are present in many healthy throats, and that when they bear a causative relationship to the morbid condition called pseudo-diphtheria, their number is greatly increased and atmospheric conditions, a depressed state of the general health, and other disturbing elements are added factors.

It will be noticed that in the reports of work in the New York laboratory, all cases of suspected diphtheria are classified, after bacteriological examination, as either true diphtheria or pseudo-diphtheria. It would seem that this term, "pseudo-diphtheria," is objectionable, because somewhat misleading, and that if used at all, it should be applied only to those cases in which the bacillus is found which was first described by Hofmann, and afterward studied by Roux and Yersin and Escherich, and not to the large number of cases in which the streptococci or staphylococci predominate.

There is still a difference of opinion in regard to the so-called pseudo-diphtheria bacilli, and by some observers they are considered identical with Klebs-Löffler bacilli which have lost their virulence. Until more accurate and conclusive observations can be made, it would seem better to avoid the use of the term "pseudo-diphtheria" in the classification of suspected cases.

In the Paris hospitals, cases are classified, as suggested by Löffler, as "diphtheria pure, diphtheria associated with streptococci or staphylococci or both, and simple anginas." Patients

under Prof. Koch's care are classified as pure diphtheria, diphtheria with toxemia, and diphtheria with mixed infection. For the purpose of determining whether a suspected case should be quarantined or not, classification as diphtheria or not diphtheria is sufficient. This is the plan followed by Prof. Dodge, but, in view of the fact that there seems to be abundant evidence to prove that cases in which there is a mixed infection of Klebs-Löffler bacilli, streptococci and staphylococci are, as a rule, more severe, it might be of help to the physician if, in the report to the health officer, the existence of such an infection was mentioned when present.

Considering the fact that so short a time has elapsed since bacteriological examination of suspected cases of diphtheria was first practised as a means of diagnosis, there is a large amount of convincing evidence as to its practical value.

A recent visit to the biological laboratory at the university convinced me that in the care and thoroughness with which bacteriological examinations are made, as in other departments of its work, the Rochester Board of Health and its officers are progressive and doing much to conserve the public health. The report of the board for February shows that of sixty-nine cases of suspected diphtheria, fifty-one, about 74 per cent., were proved diphtheria by bacteriological examination. For the purpose of determining the duration of quarantine, 251 cultures were made. The average duration of quarantine, as determined by bacteriological examination, was nineteen days ; the longest period forty-two days, the shortest period six days.

In discussing the treatment of diphtheria, the subject of prophylaxis merits careful consideration, for in no other disease are preventive measures more important, or more likely to be successful if thoroughly carried out. Great advance has been made in preventive medicine in recent years, and the public, as well as the medical profession, is fast learning to appreciate more fully, its importance ; but is there not some ground for the assertion that we have been slower to realize the urgent need of preventive measures in dealing with what are sometimes called the minor infectious diseases, including diphtheria and the acute exanthemata of childhood, than in contending with small-pox, cholera or yellow-fever ? Nearly every city has its small-pox hospital, but how few, comparatively, have a hospital for the treatment of diphtheria ; and, yet, how much greater the mortality from the latter than from the former disease. Dr. Kinyoun, of the Marine Hos-

pital Service, in a paper entitled The Prevention of Diphtheria, says :

We have provided hospitals for the sick with nearly every other disease, and receive the patient without question, but when a case of diphtheria presents itself the doors are closed, and if, perchance, there still remains any charity for this class of sufferers, the accommodations are such as not to be designated as hospital or hospitable. Because one is unfortunate enough to contract a disease, does it follow that it is not the proper thing to have diphtheria or small-pox, while it is highly so to suffer from erysipelas or pneumonia, or from our time-honored associate and hightly-respected protégé, tuberculosis.

He adds :

I am glad to say that the question of providing facilities for the care and treatment of this class of maladies is interesting many. But here and there, over our broad land, we observe scenes transacted which are, in this enlightened age, barbaric and a blot on our civilization.

The need of such a hospital for Rochester has long been recognized by physicians, and the efforts of the health officer and others to awaken a general interest in the subject will receive the hearty endorsement of the profession.

The subject of prophylaxis will be considered under the following divisions: (1) Isolation of patient; (2) disinfection of patient, apartment and clothing; (3) precautions to be observed during convalescence; (4) immunization with diphtheria antitoxin.

While diphtheria is highly contagious, the area of direct contagion is said to be limited to a few feet. Isolation of the patient, then, in a room from which all unnecessary articles have been removed, and distant, if possible, from those occupied by other children in the family, will do much toward preventing the spread of the disease. If nourishment and whatever else may be required by patient or nurse can be left in an intervening vacant room, so that it shall not be necessary for the nurse to go directly from the sick-room to the living-rooms of the family, there will be still less danger of others being infected. Dr. J. Lewis Smith states that :

Dr. H. B. Baker has published statistics showing that in 102 outbreaks of diphtheria the average number of cases where disinfection and isolation, one or both, were neglected was sixteen, and the average deaths 3.26, while in 116 outbreaks in which isolation and disinfection were enforced, the average number of cases per outbreak was 2.86 and the average deaths 0.66. Therefore, these precautionary measures

prevented thirteen cases and 2.57 deaths for each outbreak; in the total, 1,545 cases and 298 deaths.

As diphtheria is contracted, in the large majority of cases, by breathing air infected with Klebs-Löffler bacilli, the frequent and thorough disinfection of the throat will, by limiting to some extent the multiplication of these bacilli, do much to limit the spread of the disease. It has been wisely said that, "As far as practicable, we should deal with the infectious agents at their point of origin and under all circumstances act promptly."

As such disinfection, when secured by means suited to the age and condition of the patient, has a favorable effect upon the disease, it is of two-fold importance and will be considered further on under the head of treatment.

Various disinfectants may be used in the room, but it cannot be too strongly impressed upon the attendants that it is better and easier to replace infected air with that which is pure than it is to disinfect that which is contaminated. In a word, insist on as thorough and constant ventilation as it is possible to secure. The vapor of cresoline or of a mixture of carbolic acid, eucalyptus and turpentine may be of service, but should never be substituted for the more important preventive measure, thorough ventilation.

After the case has terminated, the disinfection of the sick-room can best be accomplished by prolonged airing and thorough scrubbing of floor and walls, followed by the application of a 1 to 1,000 corrosive sublimate solution. If sulphur is burned, there must be an abundance of moisture in the room or its effect will be *nil.* After an outbreak of diphtheria in the maternity ward of the New York Infant Asylum, the ward was vacated and forty pounds of sulphur, two pounds to 100 cubic feet of air, were burned without the presence of moisture. After several hours windows and doors were opened and dust raised which was allowed to settle on culture media. The experiment proved that large numbers of bacilli were present, some of which were identical with those which had been found on the diphtheritic membrane. All articles of clothing and bedding which can be boiled may be thoroughly disinfected by this process. Dr. John S. Billings says: "The experience of large public laundries, and especially of laundries connected with hospitals for infectious diseases, such as that in Glasgow, shows that all germs of infectious diseases are thus destroyed, and that clothing of small-pox, typhus and other patients may be mingled and go through the boiling-vats without risk to the subsequent

wearers." Infected clothing should be placed in water or a bichloride solution as promptly as possible, and remain there until it can be boiled. It will not then be likely to liberate disease germs. The physician should wear a gown, linen duster or sheet while in the room and thoroughly wash his hands before leaving it. It has been well said that "Medical asepsis is as essential as surgical asepsis, and we are just as remiss in our duties as practitioners when we fail to attend carefully to the matter of disinfection, as in allowing erysipelas or suppuration to exist in our surgical cases when we can prevent them."

It has long been known that so-called ambulatory cases were frequently the means of spreading the contagion, but it is only recently that bacteriologists have made the important discovery that convalescent cases are often a source of contagion long after all traces of membrane have disappeared from the throat. It is true that the number of Klebs-Löffler bacilli rapidly grows smaller as convalescence advances, and that some of them lose their virulence; still, in many cases, enough virulent bacilli remain to make it unsafe to remove the quarantine for several days. Indeed, it is as a means of determining when this can safely be done that bacteriological examinations are of great value in every case. In connection with the investigations referred to, an effort was made to determine how long virulent bacilli remain in the throat after the disappearance of the membrane. Various observers have found Klebs-Löffler bacilli, that were proven fully virulent by the inoculation of guinea-pigs, at periods ranging from three to fifteen days. Morse found the average time ten days and Tobiesen nine days. In sixteen cases from which cultures were examined in the New York laboratory, virulent bacilli were found at periods ranging from six to fifty days, but of 605 consecutive cases no bacilli were found after three days from the disappearance of the membrane in 304, and in the remaining 301 the time varied from seven days to nine weeks. The wisdom of applying this test in every case, before quarantine is removed, cannot be doubted.

So frequently have virulent Klebs-Löffler bacilli been found in the healthy throats of those in constant attendance upon cases of diphtheria, it would be a wise preventive measure to determine by bacteriological examination whether the throats of nurse and members of the family are infected before permitting them to mingle freely with others. Escherich reports the following case, which illustrates the importance of such a precaution: "It was

noticed among the children coming under the care of a certain apparently healthy nurse, a number of cases of diphtheria were developing. A bacteriological examination being made, her throat was found to contain very numerous virulent diphtheria bacilli."

In view of the fact that the length of time during which virulent bacilli remain in the throat is shorter, as a rule, in cases which are persistently treated with antiseptic applications, would it not be well to continue their use in all convalescent cases, until the bacilli have entirely disappeared ? Would it not be well, also, by way of prophylaxis, to direct those who are caring for the patient to spray the throat frequently with a weak bichloride solution, or some other disinfectant, in order that they may be less likely to contract the disease themselves, or harbor in their healthy throats bacilli which may prove a source of infection to others.

The assertion is made by careful observers that those who have been exposed to diphtheria may be rendered immune by one injection of antitoxin. If this is true, it is evidently a prophylactic measure of the greatest importance. Katz and others claim failure in only 10 per cent. of preventive inoculations, while Dr. Kinyoun says : "In every instance, whether in hospital or in homes, there has been no record of failure to protect." He adds : "The future possibilities in this direction cannot be overestimated, as we have in the serum the almost absolute preventive of epidemics of diphtheria."

We are told that twenty centuries ago Asclipiades scarified the tonsils and performed laryngotomy for the relief of respiration, and that "it is supposed he treated membranous croup and probably diphtheria." From that day to this, physicians have tried to solve the problem of the successful treatment of this dread disease, but it must be acknowledged that too often their best efforts have been of no avail. All honor to the American physician who has made it possible to lessen the fatality of the most dangerous form of the disease and to relieve, in so great a degree, the sufferings of many cases in which recovery is impossible. Still, with all that has been gained through the use of tracheotomy, intubation, germicides and the many valuable remedies of recent years, the mortality rate has remained very high, as the following statement, taken from *Pepper's Practice*, published less than two years ago, will show : "The death-rate of diphtheria varies with different epidemics. It sometimes exceeds 40 per cent. and has even

reached 76 per cent. With 900 cases recently treated in Strasbourg the mortality was 46.7 per cent. . . . . Despite every effort for the control of diphtheria, the death-rate has remained undiminished for many years."

It may be safely asserted that if this last statement should be made today, it would not go unchallenged, for, while it is yet too early to make many positive assertions in regard to the new remedy which is attracting so much attention, it is not too much to say that since diphtheria antitoxin has been so generally used in the large European hospitals, the mortality rate reported by them is very much less than that of former years. It cannot be denied that there sometimes exists a tendency to grow over-enthusiastic in regard to new remedies which give even slight promise of aid in the treatment of this disease. The temptation is strong to believe that true which we would like to have true, without first demanding conclusive evidence in its favor. On the other hand, it is possible to be over-sceptical in regard to the utility of this, as well as of other remedies. Diphtheria antitoxin has now been on trial for several months, and all have read reports, favorable or otherwise, of the results obtained. I should like to group a few of these reports, gathered from various sources, and feel sure that such a grouping of evidence will show that the verdict is favorable, and that we have in antitoxin a remedy, the value of which has not, as a rule, been overestimated. At the Eastern Hospital, London, there were treated in 1893, 397 cases of diphtheria in children under fifteen years of age. Of these, 166, 41.8 per cent., died. From September, 14, 1894, to October 22, 1894, seventy-two cases were treated without serum, with a mortality of 38.8 per cent. From October 23, 1894, to November 27, 1894, seventy-two were treated with serum, with a mortality of 19.4 per cent. It is stated that the cases treated with serum were above rather than below the average severity.

In one of the Berlin hospitals the mortality rate of diphtheria from January 1 to March 14, 1894, was 41.8 per cent. From March 14, to June 20, 1894, 128 cases were treated with antitoxin, with a mortality of 13.2 per cent. Prof. Baginsky says: "We have never had such a low mortality with our mildest epidemics, and our best form of treatment." Dr. Goodall, of the Eastern Hospital, says: "In the course of a three years' residence in the midst of diphtheria I have tried myself, or seen my colleagues try, a considerable number of drugs in that disease. In my experience no

other remedy has been so efficacious as antitoxin." The average mortality of diphtheria in one of the children's hospitals of Paris during four years was 51.71 per cent. From February 1 to July 24, 1894, 448 patients were treated with serum. There were 109 deaths, a mortality of 24.5 per cent. During the same period 520 cases were treated without serum in the Trousseau Hospital with 316 deaths, a mortality of 60 per cent.

Dr. Fischer, of the Post-Graduate, New York, reports thirty-four cases treated with antitoxin. Thirty of these he designates malignant and four mild. Two died, a mortality of 5.8 per cent. The diagnosis in most of these cases was verified by bacteriological examination. At the International Congress at Buda-Pest, last September, Prof. Roux reported 120 cases with nine deaths, a mortality of 7½ per cent. Virchow has said much in criticism of the new remedy, but quite recently he has become convinced of its value and has given it his full endorsement. At a meeting of the Berlin Medical Society he gave the results obtained by the serum treatment in the Emperor and Empress Hospital, and remarked that all theoretical considerations must give way to the force of these figures.

Dr. J. J. Kinyoun, of the Marine Hospital service, has recently visited Paris and Berlin to make an official investigation of the serum-therapy of diphtheria. He was afforded every facility for the study of the subject by Prof. Roux, of the Pasteur Institute, Prof. Baginsky, of the Children's Hospital, Berlin, and Prof. Koch, of the Institute for Infectious Diseases, and in his excellent report to the Supervising Surgeon-General, M. H. S., he says: "From my observations I can but corroborate the statements already published. I have been able to follow the cases from the time they entered the hospital until their discharge, noting everything which has been done. I have tried hard to find fault, to pick flaws in the statistics, but have signally failed. The work must stand for itself."

The suggestion has been made by Mr. Lennox Brown and others that the use of antitoxin has a tendency to produce renal complications. Indeed, this is about the only serious objection which has been made to its use. If this be a valid objection, it is hard to reconcile it with the following facts: A large number of cases of suspected diphtheria were treated with antitoxin in the Eastern Hospital, London. In not one of the non-diphtheritic cases among these was there any albuminuria. Dr. Kinyoun quotes

Roux as saying, that "before treatment with injections of antitoxin, albumen was found to be present in two-thirds of the cases of pure diphtheritic angina. After treatment it was found in scarcely half the cases.

In presenting the following outline of treatment for your consideration, I wish to emphasize the statement that it is only an outline, to be added to and modified according to the necessities and requirements of individual cases. In a suspected case, insist on isolation of the patient at once, making such explanations as will quiet the fears of friends. Make a culture from the throat, and secure a bacteriological examination if possible, and as soon as possible. Make a second culture if the examination of the first gives a negative result, where there are indications of primary laryngeal diphtheria. If the suspicion of diphtheria is verified by the bacteriological examination, inject, with strict antiseptic precautions, from 15 to 20 c. c. of serum. The repetition of this injection on the two or three following days should depend upon the condition of the patient. If it is not evident that the disease is already yielding, other injections are indicated and should be used as required, until improvement or failure is evident. Some of the indications for a repetition are, coincident rise of pulse-rate and temperature; increase of toxic symptoms; involvement of larynx and bronchi and appearance or increase of albumen. There seems to be abundant evidence that if the bacteriological examination shows an association of streptococci, in large numbers, with the Klebs-Löffler bacilli, either in pharyngeal diphtheria or membranous croup, the attack will be likely to be more severe. Dr. Kinyoun says of the Paris hospitals: "Great stress is laid upon the class of cases in which the diphtheria is complicated with the pus cocci, especially so when the streptococci are present. The prognosis in these is, from the very commencement, looked upon as grave." Such an association would be another indication for repeated injections of antitoxin. Variations in temperature have not usually been considered of much significance in the treatment of diphtheria, but the importance of such variations in connection with the serum treatment is generally conceded. Dr. Kinyoun has added to the article referred to, a number of temperature charts, which are of interest as an indication of the temperature variations during the period of active treatment and until the termination of the case. The charts include cases of pharyngeal diphtheria, membranous croup, diphtheria associated with streptococci,

and simple angina. An initial rise will be noticed, in many cases, on the day following the first injection.

The indications for intubation are the same with this form of treatment as with any other, and should be as promptly met; but attention has been called to the fact, that in the hospitals of Paris and Berlin laryngeal stenosis is not so frequently met with as it was before antitoxin was used. If the serum treatment is used, it does not seem necessary or, perhaps, advisable to follow closely any plan of internal medication; but there can be no objection to the use of such drugs as may be called for by the special requirements of the case. The same may be said regarding the use of stimulants. The use of antitoxin does not preclude the employment of many local disinfectants, though Roux objects to the use of solutions of bichloride and carbolic acid. He advises irrigating the throat three times a day with a solution of boracic acid or of Labarraques solution, 1½ ozs. to a quart of water. Löffler recommends a solution composed of menthol, 10 grains; toluine, 36 c. c.; then add creolin, 2 c. c.; iron chloride solution (4 per cent.), 4 c. c.; alcohol q. s., 100 c. c. This is applied every three or four hours by means of a pledget of cotton, after the mucus has been wiped from the throat. This solution is put up by Parke, Davis & Co. A similar solution was used in ninety-six cases, three-fourths of which had been verified by bacteriological examination, without a single death. Peroxide of hydrogen, in varying strengths, has been used by many with success, and is doubtless one of the most valuable of the local applications. When a thorough irrigation of nose and throat can be accomplished, it is of great value. By the use of a rubber sheet this can sometimes be done while the patient is in a recumbent position. Great care must be exercised in the use of local applications to adapt the remedy and method of using it to the individual case.

The successful management of a case of diphtheria depends, in a very large degree, upon the success with which nourishment is given and its assimilation secured. It will be readily seen, however, that the urgent need of nourishing the patient, to the greatest possible extent, grows out of the fact that the rapid absorption of ptomaines or toxines produces a condition of profound depression of the vital powers. If, by the prompt use of antitoxin and the local application of germicides, this toxic condition can be prevented to a large degree, there may not be the same necessity for

what is sometimes a forced alimentation, as has been evident in connection with other methods of treatment. Still, it is certainly wise to give as much nourishment as can be properly assimilated in the treatment of every case of diphtheria.

It would seem that within the last few months great advance has been made, both in the possession of means for accurate and early diagnosis, and in the discovery of a remedy which has already accomplished much and gives reasonable promise of still greater things in the future. It is true that even though the utmost care is exercised, errors in diagnosis will occasionally be made, and equally true that even though the remedy be applied at the earliest possible moment, some cases will prove fatal. But, when the evidence is carefully considered, is it not enough to make us hopeful, at least, that in the future diphtheria will not prove to be the dreadful scourge which it has been in the past?

96 South Avenue.

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## ANTITOXIN IN THE TREATMENT OF DIPHTHERIA.[1]

By CHARLES D. AARON, M. D., Detroit, Mich.

In treating of the subject of antitoxin, we shall divide it into three parts. We shall try to give an account of the new etiology of infectious and contagious diseases. We shall give a short synopsis of the steps taken by contemporary scientists, which led to the new therapeutics and, finally, we shall treat, in the light of both, the special subject of diphtheria.

First, then, as to the cause of these diseases, as they are interpreted by bacteriologists. Behring's law is now a part of the history of medicine and is fast becoming a rule in medical practice. It says[2] that the blood, and blood serum, of an individual which has been artificially rendered immune against a certain infectious disease, may be transferred into another individual with the effect to render the latter also immune, no matter how susceptible this animal is to the disease in question. This is not merely Jenner's inoculatory theory in detail, nor is it an amplification of it. Behring's law is fundamental and we shall have to rewrite our pathology and therapeutics in accordance with it. Jenner was a sort of genius, who anticipated these grand discoveries, such as bacilli pathogenesis is; but, as all geniuses, he gave not more than undefined, grand guesses. It was left to the splendid talents and to the patient industry of Pasteur, Behring,. Roux, Kitasato,

Ehrlich and others to bring into the medical world the farthest reaching revolution it has ever experienced.

In order to put this important discovery clearly, let me state the following medical axiom—namely, that immunity against disease is always a chemical condition. It has been found that certain individuals are naturally not susceptible to certain diseases; but it has also been found that nothing could be attained by the transfusion of either their blood or of their blood serum; that on the other hand, however, the blood and the blood serum of such as had been affected by the pathological condition of any of the infectious or contagious diseases, acquired a certain reagent power; that, in short, an organic chemism took place.

It was also found that the lymph and the blood of a healthy organism do not constitute a habitat in which microbes can live; that, in fact, bacteria perish in them, probably through want of food; that, in short, healthy blood and lymph have bactericide power. The experiments of Behring, Büchner and others showed, further, that this insusceptibility of certain individuals and the bactericide power of good blood were due to albumenoids in dissolution in the serum. And they ascertained the fact, within which all the rest of antitoxin therapeutics is latent, that the sera of different animals have different degrees of bactericide effect. Again, another fine series of experiments proved that species which have natural immunity against certain diseases could furnish serum which, if inoculated into individuals of another, but susceptible species, had neutralizing power, provided, of course, the transfusion or rather intoxication proceeded in a graduated manner.

The next problem, however, which confronted these painstaking students, was to define this bactericide quality of transfused serum. The theory current up to about 1889 supposed that patients who had recovered from infectious or contagious diseases were capable of resisting another attack of the disease, simply because the first visit of microbes had left nothing for the newcomers to feed on, these having themselves already consumed all available cellular food. It was supposed, also, that the first had left behind them a kind of bacterial product, which was noxious to the second swarm of microbes, and that, consequently, the individual was practically immunized by the disease germs. This was the first step in the direction of Behring's great presentation and law. In 1890, Behring gave to the world the result of his investigation on arti-

ficial immunization. He called attention to several phenomena, which even bacteriologists had failed to notice. He had discovered that the bacilli produced a toxin, that this toxin was present in the blood serum of an infected animal, that the gradual intoxication of an animal rendered it immune against tetanus, and that this immunity was caused by the neutralizing effect which the blood serum of an infected animal has upon the toxins produced by tetanus bacilli. He further found that the toxin could be destroyed by the blood of an immunized animal, that this blood or blood serum of an infected animal would neutralize the toxin, even then, when it was transfused into other animals; and, lastly, that artificial immunity could be accomplished even by chemical poisons; that, in fact, the entire matter of immunization was a chemical process.

This was noticeable most interestingly in the not infrequent instances of spontaneous recovery from infectious diseases. A logical explanation of this phenomenon consists in the fact that in such cases the effect of the toxins, caused by the disease, is neutralized by the coincident presence of certain antitoxic constituents of the blood. These patients have immunity against such respective disease by the continued presence in the organism of residual antitoxin. The blood serum of animals which had been inoculated was now a workable quantity. Animals which had been inoculated with disease were saved by the administration of blood serum of immunized animals, in doses proportionate to the degree of antecedent intoxication. So the new etiology of germs was brought to bear upon a new therapeutics.

The man who now came to the aid of Behring was Prof. Ehrlich. Continuing the line of investigations which looked upon the subject of bacterial transfusion as a matter of chemistry rather than of microscopic biology, he brought to light the fact that not only did the blood possess bactericidal power, but also that along with it the blood contained the neutralizing reagents against the bacilli, an accompanying element which was, in fact, the seat of immune action. This we may now call by the general term of antitoxin. Along with Behring, it was shown by him and others that the injection of blood taken from immune animals rendered others immune, and that this impartition of immunity was entirely due to an element in the blood of the infected animal, which before had not been separated from the toxin, but which now was an attendant on it. So the new therapeutics began.

The problem resolved itself into the question how to ascertain the degree of immunity of the animal which had been made insusceptible by the administration of antitoxin and the degree of neutralizing capacity which its blood would have upon a known degree of intoxication. This antitoxin differs from the original toxalbumin in color, the first being whitish, the second yellowish ; in form, the first being crystalline, the second amorphous. They are differentiated, however, essentially by the fact that, whereas the toxalbumin is virulent in transfusion, the other is harmless. This last was no small item in the construction of the new therapeutical significance which antitoxin was bound to acquire.

Though we have arrived now at the subject of diphtheria, to which the presentation till now was preparatory, we must still attend to one item. We must explain the terms, natural immunity and artificial immunity. Natural immunity can be described somewhat like this : the white corpuscles of the blood produce a certain germicide property. This property scientific experiments have shown to reside in the nuclei of the proteid substance—let me here mention the nuclein of Dr. Vaughan—and it has been observed that there is an abnormal increase of leucocytes in those places which are infected by the disease. It is now established that the alexins are to be credited with this defensive capacity.

In regard to artificial immunity, we must not forget that there is a considerable difference between the alexins present in the leucocytes and the antitoxin, which is introduced into the organism. The difference consists in the difference of their respective methods of attack. The alexins destroy the germs directly by drawing them within the nuclei of the proteid substance and digesting them. The antitoxin can only act upon the corresponding poisons, if these have been generated by metabolism or have been introduced into the organism by means of intoxication. Again, the difference is one of biology as well. Alexins are animal and the antitoxin element is bacterial. Besides, the alexins are present in the blood alone, while the antitoxin agents pervade the tissues. Lastly, we may say that the striking fact of their difference is that, while alexins, though they give natural immunity to personal organisms, cannot impart it by transfusion ; specific immunity, however, can be established in a foreign organism by inoculation of antitoxin by means of serum.

It is unnecessary to state that we know of diphtheria bacilli

since 1884, through the discoveries of Klebs and Löffler. Also that there are certain other bacilli, which resemble the original Klebs and Löffler bacilli very much ; so that they may be regarded as two varieties of one species. We may, however, state that the gravity of diphtheritic cases depends, possibly, on the fact of this variety of bacilli, but more likely on the circumstance that other malign germs are often coincident with diphtheria. Streptococci, for instance, have been found to intensify the virulence of the diphtheritic bacilli. Besides this, there are various phases of the pathology of diphtheria which will require a correspondingly varied treatment. There may be nothing but angina, or there may be an aggravated condition of the laryngeal membrane, necessitating, according to usual practice, either tracheotomy or intubation, or there may take place such a serious affection of tonsils, or of throat and nose with membranal or suppurant obstructions, that even desperate means will be of little avail.

Each of these require an antitoxin treatment of their own, depending upon the amount of toxin in the system. This toxin increases very rapidly, and much of the therapeutic effect of antitoxin administered depends on whether the stage arrived at by the patient is of a mild form or not. Should the disease have progressed so much that the bronchi and the lungs are involved and tracheotomy itself should not seem worth the effort, then in all logic, serum, too, could do no therapeutic wonders. It is natural enough to take it for granted that if the toxin has been allowed to thrive freely without timely check, a tardy injection cannot unmake the damage already done, especially if, as is well known in cases of diphtheria, the implicit dangers are paralysis of the nerves and ganglia of the heart. Least of all can any helpful, surely not curative, effect be expected from the antitoxin treatment under conditions of mixed infection. We have already spoken of the phenomena that streptococci intensify the virulence of the diphtheria bacilli.

I may state here, that owing to the specific effect of streptococci, French physicians who formerly championed tracheotomic treatment in laryngeal stenosis, have now abandoned it and taken recourse to intubation. For it has been experienced by Roux, in the hospitals of Paris, that streptococci invade the tissues more readily when tracheotomy has been performed, that death is rarely preventable then and that infection in wards is very easy. Intubation, on the other hand, runs no such risks. It is not to be forgotten

that much of the success of antitoxin treatment depends on an early administration of it. Germs are persistent fellows and the slightest brood of them will thrive even after an interval of obscuration. It is known that convalescent children will, even eight weeks after recovery, carry Klebs-Löffler bacilli when going to school. The secondary results, also, which often come in the wake of diphtheria, such as affection of the kidneys, peripheric nerves and paralysis, which not infrequently follows diphtheria, have their source in the fact that there has been a residual quantity of toxin left uncombated. This could, however, have been neutralized, if only the dose of antitoxin had been administered early enough and in sufficient quantity.

The treatment with antitoxin is about as follows, and it will be found to be surprisingly simple: the dose is proportionate to the intensity and duration of the disease. The injection is made, usually on the lateral part of the chest, but preferably on the the thigh or between the shoulder-blades. The antitoxin is absorbed within one or two hours ; it produces more or less pain, which, however, disappears within twenty-four hours. There is no immediate reaction as to temperature. Sometimes a skin eruption, like urticaria, is observed, lasting for several days, occasionally for two weeks, after the injection. It is in all cases harmless. The diphtheritic membranes are usually found larger, but whiter, the next day after injection. If the larynx has not been involved before administration, it will in no case be involved after the injection of antitoxin. It is on this account that, by an early treatment with antitoxin, many cases of otherwise necessary tracheotomy are avoided.

Large doses of serum cause a critical decrease of pulse and temperature. But care must be taken that, as is often the case, these two phenomena be not traceable to complications. For it is well known that high temperature is found often in the convalescent stage of simple diphtheria. The subjective condition of the patient leaves nothing to be desired. It disposes of evident signs of distress, even in cases which are severe ; and children who have become low-depressed by the drain of the disease, have been found in good humor, playful, with good appetite, a day after injection. Of course, the application of the serum has to be repeated, depending on the gravity of the case. Sometimes doses are administered the day after the first injection, regularly thereafter, or even on the same day.

There is a scale of immunizing units, with which all practitioners will do well to familiarize themselves. It is also important to have a fair estimate of the degree of toxication already present which is to be combated. Local treatment is to be applied, as usual.

Jenner gave to the world his experimental specific for prophylactic vaccination. But modern French and German scientists have given us a reliable law for inoculation for curative purposes, as well as for prophylaxis. Children may now be protected against the ravages of diphtheria. An average dose of from 100 to 200 immunizing units has been fixed for this, and reinoculation after two or three weeks is recommended.

In the period of incubation—which is a time of great concern to schools, to sanitary authorities and to public-minded citizens—the dose may be increased. Repeated application of small doses in certain intervals will secure immunity for a long period. In the New York Infant Asylum there were 130 cases treated without antitoxin with a death-rate of 26 per cent. From December 1, 1894, to February 1, 1895, fifty-nine cases were treated with antitoxin with a death-rate of 15 per cent., a decrease of 11 per cent.

From the results of the experiments of antitoxin, we can come to a safe conclusion that the administration is perfectly harmless and it positively possesses prophylactic and curative properties, if applied in proper quantity. I think the trouble is that too small a quantity is given and there must be enough antitoxin administered to neutralize the toxin in the system. It is evident that it requires a larger dose of antitoxin to cure a case of several days' standing than to check an infection in its incipiency.

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1. Read before the Detroit Academy of Medicine, Detroit, Mich., March 11, 1895.

2. See, for an exceptionally clear account of the successive steps which led to the formulation of Behring's law, *Krieger's Serum Therapy*, p. 11.

535 Woodward Avenue.

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The Income Tax.—At the request of the chairman of the board of censors, Mr. Taylor, the counsel for the Philadelphia County Medical Society, sent a written opinion concerning the income tax in relation to physicians. A physician's office, or that part of his dwelling used as an office and not the whole house, was exempt in estimating his income.—*Times and Register, April 20, 1895.*

# ENTEROCLYSIS IN THE VARIOUS FORMS OF ENTERO-COLITIS AND THE ZYMOTICS GENERALLY.[1]

By F. W. BARTLETT, M. D., Buffalo, N. Y.

"Familiar in our ears as household words," will be the comment of my local brethren, as it is now past eleven years since I reported to the then Buffalo medical and surgical association, now the academy, my first cases of enteroclysis. They were admitted by all to be original work ; not but that enemas of various forms are as ancient as medical history, but the substance used for the purpose as a germicide, hydrarg. bichlorid in defined quantity and solution, was novel in their experience. For several years this treatment was limited to dysentery, as that term is generally understood, but soon, influenced by success and by a belief that other forms of disease had a similar causation in the invasion of special germs, I added to my repertoire typhoid fever; then, step by step, all forms of diarrhea and lastly of the zymotics generally.

It is now my purpose to specially define my mode of operation, which I consider of particular importance. It is not usually so necessary in ordering enemas to give instruction, but, in my observation, the treatment of colitis by active germicides should be thoughtfully considered. I pass for exhibition the apparatus employed, as also a sample of the rectal tubes of former and even the present times. It is, in my estimation, a dangerous and wholly unnecessary instrument. The sigmoid is not so easily passed and fatal traumatisms may follow rude manipulations. It is only necessary, by position of the patient, to convert the descending colon to a horizontal direction and, in doing so, to change the transverse colon to a descending one. The introduction of the catheter for any special distance is unimportant. If it readily enters entirely it is well, otherwise the enema will flow promptly to the transverse colon, now become a gravitating canal and so on to the iliocecum and often to the ilium. Now, my solution never exceeds one grain bichloride to 8,000 grains (one pint) of warm water. I employ, usually, four pints and I use for the reservoir a glass or glazed vessel, such as a two-quart glass pitcher or fruit jar, and locate myself and patient as follows : first arranging suitable protectives for the mattress, place the patient on his *right* side, with pelvis rather above than below the shoulder level. Bring the pelvis to the edge and rather over the edge of the mattress. I place one

1. Read by title at the twenty-seventh annual meeting of the Medical Association of Central New York, Buffalo, N. Y., October 16, 1894.

common chair opposite the sacrum used for the reservoir and one for myself to the left and near the nates. I then drop the suction end of the syringe to the bottom of the reservoir, introducing by the left hand the oiled catheter within the sphincter, and try, by gentle manipulations, to urge it forward, but do not risk spasm of the tender rectal surface by persistence. I pump, by the right hand, steadily and gently, and usually find the catheter can be passed farther upward. As soon as the reservoir is emptied, place the patient upon an ordinary slop jar or chamber pail, in preference to the usual utensil, thus securing full capacity for the dejection. The enema will be promptly and noisily ejected. After reasonable time return the patient to bed, lay him on left side to favor gravitation of retained fluid, and place sufficient removable material under him to protect the mattress. In a few minutes expect further use for the jar and treat subsequent pain or restlessness *secundem artem.* You may readily control dysentery in the adult by one enema, rarely more than two will be required, repeating second or third day, if needed. If the patient is placed upon the left side in operating, you must overcome the pressure of the injected fluid as it rises in the now vertical transverse colon, also the spasmodic action of same due to the wholly unnecessary pressure upon its walls. Before the enema passes to the ascending colon, the tension may become unbearable and compel you to desist, defeating the operation.

As is most proper, we avail ourselves, as speedily as possible, of the recent bacterial discoveries, which will be fully described at this meeting. "The people who walked in darkness saw a great light." We are informed as to germ causation, and, as physicians, we should profit by the revelations of science. Knowing something of vital powers of resistance, we must, if unable to diffuse antitoxins in the circulation, inhibit the development of germs and consequent ptomaines and toxines by efforts for their destruction while still within the alimentary canal. Work by safe germicides in the stomach and ileum and by thorough flushings, always of germicide qualities, in the colon. Remove the retained secretions of diphtheria, scarlet fever, measles, and the like, from their habitat in the intestines.

I have had no relapses in dysentery or typhoid, and if in the latter disease there has occurred, after the fifteenth day, any special rise in temperature, it was induced by some extraneous cause. In infantile cases, one grain bichloride to 16,000 or

20,000 has been my rule, using one or two pints this strength, repeated *pro re nata.* While in adult cases I insist on the patient retaining the full enema, two quarts, such coöperation is not expected from young children. I introduce the whole catheter, if easily done, to compensate for premature expulsion of enema.

Experience in this plan of treatment is not limited to myself in this city. I have reason to assert that it has found favor with many physicians, often with my coöperation. It is no exaggeration to say that I have administered, in the eleven years now closed, nearly one thousand germicide enemas. I have limited the germicide used to one grain bichloride to 8,000 to 20,000 solution. When I have occasionally used warm water only, it has proved useless. The way is open to trial of other and perhaps safer germicides ; open, in fact, to gaseous inflations.

The fierce phlebotomy of Brousais, the alcohol of Stokes, the expectancy of Gull and the semi-freezing of Brand may be safely superseded by anticipatory germicide treatment. In typhoid make this your very first treatment. It has claims almost specific, particularly if your patient has hot water sponging every fourth hour. Avoid cold as conducive to flatulent colic, local congestions, diarrhea, hemorrhage, wakefulness, spasms, and the like. Control temperature by antipyretics and purely abdominal ice-packs, if needed. Never let your patient shiver from exposure.

Lacking the advantages of hospital clinical opportunity, I can only offer twenty-seven consecutive successful cases of typhoid in proof of the usefulness of the treatment directed. I am striving to be concise and will only further say, treat all your cases of intestinal fluxes, from the month old infant to the octogenarian, in this way. Flush, also, your scarlet fever, diphtheria and intermittent fever cases, if diarrhea is a prominent symptom. Escape relapses and other sequelæ by prompt expulsion of germs, ptomaines and toxines from the colon.

I would claim originality for this modification in treatment, antedating as it did, in its entirety, any verbal or written communication to the profession.

NOTE.—The syringe preferred is the "Alpha," on account of exit tube favoring easy attachment of the catheter, by simple insertion, also the continuous current. Any syringe with inserted tubes will answer. An ordinary No. 10 (American) catheter makes good connection by cutting off bone finish. Insert cut end.

## NOTE ON SMOKED GLASSES.

By RICHARD H. SATTERLEE, M. D., Buffalo, N. Y.

Eyestrain as a potent factor in the causation of headaches and general nervous phenomena is admitted by the most conservative. How necessary then, in these cases, to eliminate this element whenever found. A frequent cause of eyestrain, that is often overlooked, is the cheap smoked glass.

The glass I refer to is an imitation of the French coquilles. When properly made, there is no objection to coquilles, but they are expensive and hard to find. The cheap American imitation has curved surfaces, the convex surface being out and the concave surface worn next to the eye. Usually the concave surface exceeds the convex surface in curvature and the result is a nearsighted lens. This can readily be proved by holding the glass in front of the eye and moving it back and forth. If the object, as seen through the glass, seems to retreat ever so slightly when the lens is moved away from the eye of the observer, the lens is a nearsighted glass. Often it will be found that if the glass is held parallel with the eye and rotated slightly, all objects seen through the glass will be distorted. This shows imperfections in the curvature, which would tend to irritate the eyes whenever worn.

Any bright light causes pain, because it produces extreme contraction of the pupil, and this strain on the ciliary muscle tires the eyes in a short time. A smoked or tinted glass shuts out some of the rays of light and allows the pupil to dilate, producing at once a sense of comfort.

The majority of people wearing these smoked glasses are farsighted. Wearing these curved American nearsighted glasses brings the accommodation into play, creating all sorts of reflex nervous disturbances, and may even permanently impair the vision.

The smoked or tinted glass with plane surfaces are cheap and do no harm whatever to the eyes. This kind should always be preferred.

189 Delaware Avenue.

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## STATE COMMISSIONERS IN LUNACY.

By GROSVENOR R. TROWBRIDGE, M. D., Buffalo, N. Y.

A rather peculiar condition exists in the present laws regarding the appointment of the commissioners in lunacy in the State of New York. As is known to all familiar with the make-up of this board, it consists of three individuals,—a physician, who shall always be

president, a lawyer and a layman. So far, so good. Let us now consider the restrictions put upon the Governor in appointing these men. Although the following is not an absolutely accurate quotation of the law, nevertheless it gives the essential points. The physician must be a man of good morals, reputation and must have been in actual practice for ten years, and have had some experience in the care and treatment of the insane. The legal member and the layman have no such restrictions governing their appointments.

Now, why is all this red tape loaded upon the medical member? The law is unreasonable and absurd. It is easily seen that, under a "machine" administration (the present one is an exception in this state), a man who had been in practice ten years and had one day's experience in an insane hospital could hold the position, while a man who had had nine years and a half experience in one of our state institutions would not be eligible. This is not right, and the sooner the law is revised the better it will be. Why should the law not require that the legal member should have been in practice of his profession for ten years? Why does it not require that the layman should have been in business for ten years, and, finally, what earthly benefit will ten years in the practice of medicine be to a man who holds the position of medical member of the commission? He certainly should have nothing to say in regard to the actual treatment of the insane of this state, for that part is in the hands of our superintendents and their assistants. New York is, without question, in the lead in regard to the condition, management and quality of her state institutions and, without doubt, the present commission in lunacy is a good and efficient body, but heaven protect the unfortunates of our state should we have a second Altgeld in the gubernatorial chair.

1331 Main Street.

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The Cross of the Legion of Honor is to be conferred upon Professors Behring, of Halle, and Löffler, of Griefswald, in recognition of their services in serum therapy. This is largely due to the action of Dr. Roux, who refused decoration unless the two German professors were also recognized. — *Chicago Medical Recorder.*

# Progress in Medical Science.

## STATE MEDICINE, PUBLIC HEALTH, HYGIENE AND BACTERIOLOGY.

Conducted by ERNEST WENDE, M. D.,
Health Commissioner in the City of Buffalo, N. Y.

### The Milk Supply of Buffalo.

DEPARTMENT OF HEALTH, OFFICE HEALTH COMMISSIONER.

*Dr. Henry R. Hopkins, Chairman Sub-Committee appointed by the Academy of Medicine for Investigating the Milk Supply of Buffalo :*

My Dear Doctor—As requested by you, I herewith submit the following data concerning the milk business of Buffalo, and which would have been handed you before but for your informing Dr. Heath there was no hurry in the matter :

Annual consumption of milk in Buffalo, 5,127,660 gallons, or about 14,000 gallons per day. Of this, 550,000 gallons per annum is brought by men who haul the product from their own dairies ; 38 city milkmen keep their own herds, numbering 410 heads ; 2,500 gallons per day are delivered in bottles, the balance served from cans. The source of supply is that designated by State Board of Health, Western District of New York. It is transported to the city by the following railroad companies in the proportions named and under the following conditions :

*Delaware, Lackawanna & Western R. R.*

| Special Milk Train. | Maximum Distance Hauled. | Time Consumed. | Av'ge Amt. Hauled. |
|---|---|---|---|
| " | 60 miles. | 2 hrs., 20 min. | 2,750 gallons. |

Special cooled cars. All stations where milk is received and delivered enclosed and cooled.

*New York Central & Hudson River R. R.*

| No S. M. T. | M. D. H. | T. C. | A. A. H. |
|---|---|---|---|
| | From Lockport Branch. | | |
| By passenger trains. | 25 miles. | 1¼ to 1½ hours. | 2,000 gal. (est.) |
| | Main Line—From Batavia. | | |
| | 36 miles. | 1½ hours. | |

Milk sheds at regular stations ; terminal stations covered.

*West Shore R. R.*

| No S. M. T. | M. D. H. | T. C. | A. A. H. |
|---|---|---|---|
| | From Elba. | | |
| By reg. pass. trains. | 38 miles. | 1 hr., 22 min. | 616 gallons. |

Protection to the shipments at only two stations (Dunsville and Bowmansville) ; all other stations are exposed.

*Buffalo, Rochester & Pittsburg R. R.*

| No S. M. T | M. D. H. | T. C. | A. A. H. |
|---|---|---|---|
| | From Springville. | | |
| " | 32 miles. | 1½ hours. | 1,411 gallons. |

No protection to the milk at any point of shipment.

*Western New York & Pennsylvania R. R.*

| S. M. T. | M. D. H. | T. C. | A. A. H. |
|---|---|---|---|
| | From Hinsdale. | | |
| " | 65 miles. | 2 hrs., 50 min. | 4,000 gallons. |

No protection to shipments.

Concerning matters which bear upon the integrity of the milk supply at its source, health of herds, handling, and the like, the following appears pertinent:

*First.*—The average size of herds are from fifteen to sixty head, but I have no knowledge of the character and breed save that it is claimed that they are healthy.

*Second.*—The arrangements for cleansing the utensils, pans, cans, and the like, vary from scalding and airing to scrubbing, with and without the use of various cleansing alkaline powders, such as sal soda and gold dust. There appears to be no uniform custom in cleansing, though all have, apparently, in mind the necessity of such care and cleanliness and, in their individual methods, endeavor to be thorough, and they believe the results are satisfactory and show it.

*Third.*—The method of cleaning and removing the animal heat generally followed is that of placing the pans or cans in tubs or barrels of cold water, taken from wells, springs and running brooks and constantly and thoroughly stirring it with a stirrer for a varying period of time. The time generally allowed or given to this process varies at each place, depending upon the hour of milking and time of shipment, and varies from three-quarters to two and one-half hours. Where train time permits, longer time is expended, and *vice versa*. A few dairies use ice during the hot months to expedite the cooling; the majority do not.

The Department of Health, having no control or jurisdiction over the dairies, can only express its views upon what it would like to see done, and what would be an apparent improvement.

*First.*—A periodical examination of the cattle for tuberculosis by competent veterinary surgeons, by the tuberculine test, and also as to their general health, and particularly the condition of their udders, and that reports of such examinations should be, at stated

periods, made to the health department at the city where the product is shipped to.

*Second.*—That inspections should be made of the fitness and sanitary condition of the barns, buildings and surroundings, in fact of all the premises where the herds are kept, and the milk, particular attention being given to the character of their quarters in Winter time. This should also include inquiry as to the possible source of water contamination.

*Third.*—That a more efficient and uniform method—preferably chemical—of cleansing the cans and utensils be adopted.

*Fourth.*—That the time allowed for cooling should be increased wherever possible, either by earlier milking or a better railroad schedule, or ice regularly used when the time is limited. If possible, the adoption of some more efficient method, if there be such, particularly where time is an element.

*Fifth.*—Brewers' malt is used as an article of food in about eighteen per cent. of the herds that are owned by the city milkmen or are fed in the vicinity of the city, and is used in the proportion of about twenty or thirty per cent. of their feed. The extent to which swill is used cannot be estimated, as, undoubtedly, in the Winter many farmers and dairymen use their cast-off refuse of a vegetable character in feeding their stock. The general opinion is, and correctly so, that swill is an offensive article of diet and should be stopped, and, therefore, stringent methods might be adopted for the prevention of such feeding, particularly in the vicinity of large cities.

Brewers' grain or malt, when fresh and not soured, is not objectionable as an article of diet, in fact practical men say it is a valuable food.

Concerning the transportation and facilities, it is to be stated that, while these at present are adequate, they could be improved upon as to the method of handling and carrying the milk, in the following manner, if possible :

*First.*—The arrangements should be such that the milk could be housed at the depots while awaiting transportation, in all kinds of weather, affording protection from the heat in Summer and inclement weather in Winter.

*Second.*—Those roads running special milk trains should, during the Summer months, use refrigerator cars or cars artificially cooled ; those handling milk on regular passenger trains should or might have a portion of the car so arranged that it could transport the milk in connection with ice.

The Department of Health has had some correspondence and directed its efforts in this direction, with the result of learning that, in the estimation of the companies, the haul is generally too short, or the business too small, or schedule arrangements too difficult to justify such an innovation. One railroad candidly stated that it would decline to handle any milk if it were possible to compel such conditions.

The ideal way of transporting milk is that adopted by the Delaware, Lackawanna & Western R. R. Co., at its eastern terminus, where the milk is transported under the direction of a milk company who runs its own express trains, which are iced, and at every station where the milk is received it is stored in ice houses awaiting the arrival of the train.

After reaching the City of Buffalo, the milk is handled or sold by about 350 dealers, large and small, all told, and is delivered to consumers in large and small wagons, 30 per cent. of which are uncovered, and with the exception of those used purely for hauling to and from the depot, are generally properly lettered and with their license number.

Bearing upon the maintenance of the proper condition of the milk while in the hands of the dealer in the city, the following are the most cogent facts: The methods of keeping the product cool and sweet and the cleanliness and sanitary condition of the premises and plumbing, particularly of the milk refrigerators or coolers where the milk is kept pending its distribution or while for sale.

Previous to the past year many of the milk houses in our city and nearly all or most of the apparatuses or receptacles for keeping milk were defective in cleanliness, plumbing and ventilation and in their attachments for that purpose. Since that time, however, Dr. Heath and Mr. Wilson, of this department, have inspected them and had their condition so altered as to make them, it is believed, sanitary, and protection is given against any danger from the absorption of gases from the overflow leading to the sewer.

The reinspections show that the majority of them are practical and safe and no further change in them at the present time seems pertinent, unless in the direction of elaboration.

In the accomplishment of this work 460 inspections were made that revealed the following condition of affairs which needed changing:

*First.*—The association of stable and milk house.

*Second.*—The association of privy vault and milk house—many being so bad as to necessitate their being immediately closed.

*Third.*—The absence of proper plumbing, it being mostly untrapped and unventilated.

When the reinspections are finished it is believed that the milk houses in Buffalo will be, as stated, practically safe.

In the matter of cleaning utensils and bottles used in delivery, there is the same want of unanimity of method as in the cases of the dairies, although the importance of cleanliness seems to be generally understood, and apparently the methods adopted are effectual and carefully carried out, which consist of scalding, steaming, washing with alkalies, soda, ventilating and the like. About 70 per cent. of the milk sellers merely rinse out the cans before returning them to the dairy, although it is not incumbent upon them, it being generally understood in the milk contracts that the dairymen are to keep in repair and in cleanliness the cans used in transportation. It is, in fact, a question between the buyer and the seller.

The methods adopted for preserving the milk while on the wagons in delivering during the Summer are wanting in uniformity or are absolutely insufficient. In uncovered wagons they consist merely in covering the cans with canvas, rubber or woolen covers, while on wagons that have tops little or no other protection is afforded; some use open wagons in winter and covered in Summer.

It is claimed that they deliver their product before the heat of the day and that no complaints are made and that they see no bad results, and these are apparently the facts. But very few milkmen surround their cans with ice during the extreme heat.

All wagons should be covered and it is believed that some system or device whereby the milk cans can be kept on or surrounded by ice while on the wagons, would be an improvement upon the present system, particularly if simple, within reason, and not to increase the cost of handling.

To sum up, the Department believes the most important features wherein the supply of milk to the city can best be maintained are outlined as follows:

*First.*—Veterinary and sanitary supervision at the dairies; education of the dairymen as to the importance and necessity for such, and for the various protective procedures that are desired, or the dangers from other neglect. The great importance and neces-

sity for this work is best understood by referring to the results of examinations so far made. The amount of tuberculosis throughout the district which supplies Buffalo is not known but must exist, even though the dairymen claim their cattle are healthy and it is to their interest to have them so.

In parts of Niagara county, which fortunately do not supply us with milk, the disease is very active—probably 75 per cent. of all herds being affected. Of twenty-two samples from this region, examined by the state board of health sixteen were found tuberculous. One of the inspectors in that district told Dr. Heath, who has had some extensive conferences with him concerning the matter, that much of the disease was in the udders, and he had seen many cows from which pus came with the milk.

In connection with this matter and the state action concerning it, I have to say that the state legislature last year only appropriated $10,000 for carrying on the work of inspection of herds supplying milk, for tuberculosis, but has appropriated no money to pay for the destruction of the animals which are condemned. At the present time, all the inspectors can do is to make their recommendations, and, in most instances, all they can accomplish is isolation of the diseased from the rest of the herd. What is needed is a larger appropriation for the examination and to enable such cattle as are condemned to be destroyed at the expense of the state.

*Second.*—Improvement in the method of transportation, more particularly during the Summer months.

*Third.*—Protection from the various agencies liable to affect the milk while in the hands of the dealers, and which have been referred to; and, furthermore, the prevention, as far as possible, of commercial fraud, such as watering, by the establishment of a corps of inspectors for the purpose, such as has been adopted in New York and Philadelphia.

The department, having no jurisdiction beyond the city limits, cannot enforce any action it may deem an improvement at the dairies. It hopes, however, by bringing the dairymen into closer connection with the department, through circulars of instruction, requests, and the like, to effect some changes, if not all, more especially in the direction of veterinary examination and cleanliness. Many questions of importance arise concerning changes which may or might be attempted in changing established procedures in the milk business, both in its transportation and delivery,

and the department feels the necessity of much consideration and justification in whatever action it takes.

Concerning the relationship and connection between the dairies, the milkmen and the consumer, the department proposes to keep a register of milk dealers, showing the source of the milk, condition of herds, its character, and such other information as may be deemed pertinent for references. This register will be open for public inspection, and, to that extent, may be a guide as to the quality and character of the various milks—if they have or have not been examined for tuberculosis by a proper veterinary.

So far, it is appearing difficult to get the dairymen to respond as would be desired.

In reply to the specific inquiry made in your letter, you are respectfully informed that it is in evidence that the natural advantages belonging to the region used for grazing the herds that supply milk to Buffalo are everything that could be desired.

*Second.*—That the railroad facilities are abundant, but could be improved upon in the direction mentioned.

*Third.*—The danger from careless handling, dirty cows, and the like, have been touched upon in the foregoing, and while the present arrangements are not perfect, it is not considered that they carry with them any great degree of danger.

*Fourth.*—Abuses of milk undoubtedly exist in the way of dilution, but it is believed that it is not a practice, and that it is only resorted to irregularly and amongst the very smallest pedlars. No complaints have been received, nor is the addition of chemicals to the milk practised, so far as this department is informed. Milk has been complained of, and upon examination has been found to be contaminated by colostrum. In all these instances the matter has been corrected and its repetition guarded against.

The deductions drawn from the condition of the business, as known to the department, corresponds in every way with the experience of the state examiner, Mr. Zillig, and his assistant, who are doing excellently well, but the method of which Dr. Heath is the author is considered so helpful that the local boards of health are preparing to adopt the same at once.

In reply to your inquiry as to how the supply can be made the best in the world, you are informed that it is believed that such could not be consummated without an expenditure of money and the infringement of rights as to make such practically prohibitory.

Any further information which it is in our power to convey to you we will be glad to furnish.

Yours very respectfully,
ERNEST WENDE, *Health Commissioner.*

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# State Medical Examinations.

## AMENDMENTS TO THE MEDICAL PRACTICE LAW.

THE following amendments to the medical practice law of 1893 were passed by the last legislature and filed in the office of the secretary of state, May 13, 1895.

I. Providing penalties for violation of the medical practice law :

An act to amend chapter 661 of the laws of 1893, entitled "An act in relation to the public health, constituting chapter twenty-five of the general laws."

*The People of the State of New York, represented in Senate and Assembly, do enact as follows :*

SECTION 1. Section 153 of chapter 661 of the laws of 1893, entitled "An act in relation to the public health, constituting chapter twenty-five of the general laws," is amended so as to read as follows :

SEC. 153. Penalties and their collection.—Any person who, not being then lawfully authorized to practise medicine within this state and so registered according to law, shall practise medicine within this state without lawful registration or in violation of any provision of this article ; and any person who shall buy, sell or fraudulently obtain any medical diploma, license, record or registration, or who shall aid or abet such buying, selling or fraudulently obtaining, or who shall practise medicine under cover of any medical diploma, license, record or registration illegally obtained, or signed, or issued unlawfully or under fraudulent representations or mistake of fact in a material regard, or who, after conviction of a felony, shall attempt to practise medicine, or shall so practise, and any person who shall append the letters M. D. to his or her name, or shall assume or advertise the title of doctor (or any title which shall show or tend to show that the person assuming or advertising the same is a practitioner of any of the branches of medicine) in such a manner as to convey the impression that he or she is a legal practitioner of medicine or of any of its branches without having legally received the medical degree, or without having received a license which constituted at the time an authority to practise medicine under the laws of this state then in force, shall be guilty of a misde-

meanor, and on conviction thereof shall be punished by a fine of not more than $250, or imprisonment for six months for the first offense, and on conviction of any subsequent offense, by a fine of not more than $500 or imprisonment for not less than one year, or by both fine and imprisonment. Any person who shall practise medicine under a false or assumed name, or who shall falsely personate another practitioner of a like or different name, shall be guilty of a felony. When any prosecution under this article is made on the complaint of any incorporated medical society of the state, or any county medical society of such county entitled to representation in a state society, the fines when collected shall be paid to the society making the complaint, and any excess of the amount of fines so paid over the expense incurred by the said society in enforcing the medical laws of this state, shall be paid at the end of the year to the county treasurer.

SEC. 2. This act shall take effect immediately.

II. Providing for better general education preliminary to receiving the degree of bachelor or doctor of medicine:

An act to amend chapter 661 of the laws of 1893, entitled "An act in relation to the public health, constituting chapter twenty-five of the general laws."

*The People of the State of New York, represented in Senate and Assembly, do enact as follows:*

SECTION. 1. Section 145 of chapter 661 of the laws of 1893, entitled "An act in relation to the public health, constituting chapter twenty-five of the general laws," is amended so as to read as follows:

SEC. 145. Admission to examination.—The regents shall admit to examination any candidate who pays a fee of $25 and submits satisfactory evidence, verified by oath if required, that he: (1) Is more than twenty-one years of age; (2) is of good moral character; (3) has the general education required in all cases after August 1, 1895, preliminary to receiving the degree of bachelor or doctor of medicine in this state; (4) has studied medicine not less than three full years, including three satisfactory courses in three different academic years in a medical school registered as maintaining at the time a satisfactory standard; (5) has either received the degree of bachelor or doctor of medicine from some registered medical school or a diploma or license conferring full right to practise medicine in some foreign country. The degree of bachelor or doctor of medicine shall not be conferred in this state before the candidate has filed with the institution conferring it the certificate of the regents that three years before the date of the degree he has either graduated from a registered college or satisfactorily completed a full course in a registered academy or high school; or had a preliminary education considered and accepted by the regents as fully equivalent; or had passed regents' examinations representing for

degrees conferred in 1898 one year of academic work, for degrees conferred in 1899 two years of academic work, and for degrees conferred in 1900 a full high-school course. Students who had matriculated in a New York medical school before June 5, 1890, shall be exempt from this preliminary education requirement, provided the degree be conferred before August 1, 1895. The regents may, in their discretion, accept as the equivalent for any part of the third and fourth requirement evidence of five or more years' reputable practice, provided that such substitution be specified in the license.

SEC. 2. This act shall take effect immediately.

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MEDICAL LEGISLATION IN MONTANA.—A new Medical Practice Act, to go into effect July 1, 1895, has lately been passed by the Montana Legislature, and received the approval of the Governor on March 13th. The act provides for the appointment by the Governor of a board of seven medical examiners constituted of graduates of accredited colleges of medicine. Applicants for a license to practise, graduating after July 1, 1898, must have attended four courses of lectures of at least six months each. The board has the privilege both to refuse to grant and to revoke a certificate for unprofessional, dishonorable or immoral conduct.—*Medical News.*

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## TRIONAL IN THE INSOMNIA OF CHILDREN.

IN A paper on this subject Claus concludes (*Theraupeutic Gazette*):

1. Trional, in the dose of one-third to twenty-two grains, according to the age of the child, is a brilliant hypnotic. On the following morning neither headache nor heaviness of the head was noticed. Physiological sleep was favored. Patients do not become accustomed to it. Sleep occurred in ten or fifteen minutes after its administration.

2. Trional has no very pronounced effect upon insomnia the result of pain.

3. Trional leaves the intellectual, respiratory and circulatory functions untouched, and it has a favorable effect upon digestion.

4. In toxic insomnia, particularly that caused by alcohol, chloral seems to be more active.—*Atlanta Med. and Surg. Journal.*

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WHEN a physician in Arkansas becomes an habitual drunkard the state board of health is by law enjoined to revoke his license.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. JUNE, 1895. No. 11.

# COLLEGE COMMENCEMENTS AND ALUMNI ASSOCIATION MEETINGS.

## BUFFALO UNIVERSITY MEDICAL COLLEGE.

THE annual commencements of the medical colleges in Buffalo this year fell on dates wider apart than usual. The exercises connected with the forty-ninth annual commencement of Buffalo University Medical College were held Tuesday, April 30, 1895.

The twentieth annual session of the Alumni Association was opened at 10.30 o'clock A. M., in Alumni Hall, at the college building, on High street, under the presidency of Dr. Ernest Wende. After calling the roll, to which a large number of members responded, the annual business meeting began. Among other things, the executive committee was directed to revise the constitution and report its action next year. The chair appointed Drs. Phelps, Jones, Diehl, Meyer and Willard a nominating committee, which subsequently reported the following nominations:

President, Dr. Willis M. Baker, Warren, Pa.; vice-president, Dr. P. W. Van Peyma, Buffalo; second vice-president, Dr. D. A. Currie, Englewood, N. J.; third vice-president, Dr. H. G. Matzinger, Buffalo; fourth vice-president, Dr. J. A. McPherson, Tonawanda; fifth vice-president, Dr. J. W. Putnam, Buffalo; permanent secretary, Dr. E. L. Frost, Buffalo; recording secretary, Dr. N. Victoria Chappell, Buffalo; treasurer, Dr. H. U. Williams, Buffalo; trustees, Dr. H. P. Trull, Williamsville; Drs. F. E. L. Brecht, E. C. W. O'Brien, Joseph Fowler, M. B. Folwell, Buffalo; Julius Wenz, Lancaster; executive committee, Dr. A. A. Jones, Dr. Albert T. Lytle, Dr. F. B. Willard, Dr. Willis Baker; Dr. John Parmenter, secretary of the faculty.

The afternoon session opened at two o'clock, when Dr. M. D. Mann, dean of the faculty, delivered an address of welcome, which was responded to by Dr. Ernest Wende, the retiring president.

The following scientific papers were then read: Rupture of the Uterus with Prolapse of Intestines after Abortion, M. D. Mann; The Legal Status of Medical Practitioners, Ansley Wilcox; Some Points Concerning the Surgery of the Cranium, Roswell Park; The Treatment of Typhoid Fever by Intestinal Asepsis, A. L. Benedict.

The commencement exercises were held in Music Hall, beginning at eight o'clock in the evening. After prayer had been offered by the Rev. Dr. Andrew Purdy, and a selection played by the orchestra, Dr. John Parmenter, secretary of the faculty, presented the names of fifty-one candidates for graduation, as follows:

Herman J. Abel, Canandaigua; Montressor Axford, Buffalo; Sherman W. Bates, Akron; William J. Boyd, Buffalo; Charles R. Borzilleri, Buffalo; R. V. Crittenden, Ithaca; H. DeGolyer Clapp, Geneva; W. Grant Cooper, Kenyonville; Andrew J. Dick, Watertown; W. J. Deane, Kingston, Ont.; Alex. Geo. Denmark, Shellmouth, Manitoba; A. E. Dean, Brocton; Edward A. French, Rochester; Robert H. Fisher, Spencer; Frederick B. Gould, Buffalo; Frank W. Green, Buffalo; W. G. Grove, Lyons; LeRoy Green, Waterford, Ont.; William House, Buffalo; Geo. W. Hackett, Ceres; O. Grant Harrington, Ripley; Geo. J. Haller, Buffalo; William C. Heussy, Buffalo; John W. Hawes, Buffalo; W. James Howells, Buffalo; Geo. N. Jack, Cameron Mills; Willard Burton Jolls, Dayton; John C. Kamp, Buffalo; Charles C. Kimball, Watertown; C. T. Logan, Warren, Pa.; Henry W. Lattin, Buffalo; S. E. Moore, Waterford, Ont.; Carl C. Mann, Warsaw; B. Ross Nairn, Buffalo; F. R. Pickett, Kenyonville; Frank LeRoy Purdy, Buffalo; Harry A. Powers, St. Johnsbury, Vt.; N. Gorham Russell, Fulton; Edwin C. Reames, Ava; Charles L. Randall, Buffalo; J. H. Robison, Bradford, Pa.; C. B. Rowell, Fairport; Anna M. Stuart, Elmira; Rush B. Shumway, Addison; J. Nelson Shumway, Addison; Chas. H. Sangster, Buffalo; E. J. Smith, Watertown; John Van Doorn, Newark; Sidney D. Wilgus, Buffalo; Christian A. Weinbach, Buffalo; Albert C. Way, Buffalo.

Dr. M. D. Mann, dean, then administered to the class the Hippocratic oath, and the degrees were conferred by the chancellor, Hon. James O. Putnam. The following honors were announced by Dr. Mann:

*Honorable Mention on Standing.*—Sidney D. Wilgus and Robert H. Fisher, equal; H. DeGolyer Clapp, W. J. Deane, W. Grant Cooper, N. Gorham Russell, Evan Jones Smith.

*On Theses.*—George J. Haller, Construction of Modern Hospitals; W. James Howells, The Congestion Treatment of Tubercular Joint Diseases; Sidney D. Wilgus, Differential Diagnosis; William House, Mechanical Treatment of Diarrheal Diseases in Children; Report of a Case of Corea, by H. W. Lattin.

The following graduates were recommended to the trustees for appointment as internes to the General Hospital: Sidney D. Wilgus, W. Grant Cooper, N. Gorham Russell, George J. Haller.

Twenty-seven candidates for the degree of Graduate in Pharmacy were presented by the secretary of the faculty of the pharmaceutical department. The names of twelve persons were also read who had completed the regular examinations, but who lacked the age or length of experience required for graduation. The honors were read, as follows: Edward Francis Kenney, Burton, Ohio; Louis Avery Corning, Buffalo; Charles B. Wheaton, Geneva; Charles Richards, Howard. Junior prize, John G. Brooks, Ithaca; senior prize, Edward Francis Kenney, Burton, Ohio.

Dr. A. P. Southwick, secretary of the faculty of the department of dentistry, read the names of thirty candidates for the degree of Doctor of Dental Surgery. The oath was then administered. The following five graduates carried off the honors in this department: Frederick Jacob Gieser, John James Madden, Lloyd Starr Ingalls, Charles Edwin Flagg, Fred Ellsworth Cloud.

The address to the graduates was then pronounced by the Hon. John G. Milburn, of Buffalo. This eloquent speaker was at his best, seemingly more at home among the doctors than with his own profession. Mr. Milburn's oratory is unique, his rhetoric charming, his periods forcible and telling. To appreciate his address, one should have heard it. He said in part:

I have not come here to weary you with moralizing. It is easy to delineate a profession in such a way as to make failure appear quite certain. But nothing is to be gained by exaggerating the difficulties of life. That there are pitfalls in your pathway is only too true. But there ought also to be that in your nature sufficient to escape from them. High ideals are absolutely necessary to the attainment of the highest ends.

Every man grows along the lines of his fundamental conceptions. If he thinks that life is a failure he will grow morose and cynical. Hope springs from a deep conviction of one's faith in human nature

and in human destiny. A man must emerge sometime from the realm of hesitancy and doubt. Strong, clear, affirmative convictions on the rationality of life are needful. There is no occasion for a philosophy of despair or indifference. The extent to which man attains the best that is in him, is the measure of his real happiness. Life is worth the struggle for the best that is in us.

The most perfect life of any organism is secured by the most harmonious development of its varied functions. Human life is no exception to the rule. A man's life should be so ordered as to bring into full play all of his faculties. A man has many sides to his nature. All of these have claims upon him. The intelligent man feels the pressure of these claims and strives to do them justice. The way to bring out the best of which you are capable is to put all of your faculties into active use.

Mr. Milburn closed his address by quoting the maxim, "There is no success worth having that is not based on merit." He urged the students to beware of what passed for success, which was not the real thing. "Finally," said Mr. Milburn, "accept like brave men whatever destiny may have in store for you."

The annual banquet was then held at the Genesee. The tables were artistically decorated, the university colors, blue and white, being conspicuous. Covers were laid for 150. The University Quartette, Messrs. Barrows, Ruffner, Purdy and French were announced to furnish vocal music for the occasion, but owing to the indisposition of one of the number failed to respond to frequent calls by the president and others.

The flow of post-prandial eloquence was in keeping with the general excellence of the arrangements.

Owing to the late hour at which the company began to discuss the viands, following the commencement exercises at Music Hall, it was nearly midnight before the toast-list was fairly reached. The duties of toastmaster were ably discharged by Dr. Ernest Wende, '78, president of the Alumni Association.

Mayor Jewett was called upon to respond to the first toast on the card, "Greater Buffalo," and in so doing outlined the great future that awaits this city with the advent of power from the Falls. His honor made some happy allusions to the past, tracing the wonderful growth of the municipality since the time when the old liberty pole was hoisted on the Terrace, where, happily, it seems destined to remain among our ancient landmarks. But great as has been the city's growth in the past, the evidences are daily accumulating of a still greater future in store for the Queen City of the Lakes.

The Rev. W. B. Gifford responded to "The Two Professions" in an interesting and instructive speech.

Dr. Wm. Warren Potter, responding to "The Buffalo Medical and Surgical Journal," went back to February 23, 1875, when he delivered the first address to the Alumni Association, in St. James's Hall, which stood on the site now occupied by the Iroquois. The splendid results achieved in the past twenty years proved the wisdom of its founders. Dr. Potter's speech abounded in reminiscences of the old college and the well-remembered men who laid the foundations of what is now a flourishing university, and the story of the Journal's career was exceptionally interesting.

Thomas H. Ramsdell was as witty as usual in his response to "The Physician from a Layman's Standpoint," and Dr. H. A. Powers, '95, did justice to "The Graduating Class."

So ended the most eventful day in the academic year of Buffalo University Medical College.

## NIAGARA UNIVERSITY MEDICAL COLLEGE.

The tenth annual meeting of the Alumni Association of this institution was held on Thursday, May 16, 1895, at the college building on Ellicott street. The president of the association, Dr. E. M. Dooley, of Buffalo, took the chair about 10.30 A. M., and introduced Dr. Herman Mynter, professor of surgery, who delivered an address of welcome, in which he advocated the lengthening of the course of study to four years. The president, Dr. E. M. Dooley, then delivered the annual address, which was a résumé, in part, of the advances in surgical knowledge and methods during the past half century. After the reception of the reports of the treasurer, secretary and executive committee, the election of officers was held with the following result: President, Dr. Joseph J. Kane, A. M., Buffalo; first vice-president, Dr. B. S. Bourne, Hamburg; second vice-president, Dr. D. F. White, Buffalo; secretary, Dr. Henry Osthues, Buffalo; treasurer, Dr. F. M. Boyle, Buffalo; executive committee, Drs. J. J. Mooney, F. A. Hayes and J. J. Finnerty, all of Buffalo.

The afternoon session was called at 3.30 o'clock, when Dr. Bentley S. Bourne, of Hamburg, read a paper entitled Clinical Report of a Country Practitioner. This was followed by a paper by Dr. Herman E. Hayd, of Buffalo, entitled, Intra-peritoneal Operations for Displacements of the Uterus. The special feature of the meeting was the scholarly presentation of the subject, Some

Suggestions in Rectal Surgery, by Dr. Joseph M. Mathews, of Louisville, professor of surgery and clinical diseases of the rectum in the Kentucky School of Medicine. Dr. Mathews is also the author of a treatise on diseases of the rectum, and editor of *Mathews's Medical Quarterly*, a magazine devoted to the consideration of this special branch of surgery. He is a forcible speaker, an able teacher, and his remarks were listened to with the closest attention. The debate on Dr. Mathews's paper was participated in by Dr. Edward Clark, of Buffalo, who practises a like specialty in this city, and who handled the subject in an able manner. We hope to publish Dr. Mathews's paper in full in a future number.

The commencement exercises were held at the Academy of Music and began at 8 o'clock P. M., with a house well filled in every part. Seated upon the stage were the Right Rev. Stephen V. Ryan, chancellor of the University, Dr. John Cronyn, president and Dr. Thomas Lothrop, vice-president of the medical faculty, Dr. Floyd S. Crego and the Rev. P. McHale, president of Niagara University, the speakers of the evening. These were surrounded by other members of the faculty, the board of examiners and invited guests.

The farewell address to the graduates on behalf of the faculty was delivered by Dr. Floyd S. Crego, professor of diseases of the nervous system and insanity. Dr. Crego brought to the attention of the class many problems with which they would be compelled to deal in their professional careers. Especially interesting to the public was his discussion of the question of insanity, its causes and methods of prevention. He complimented the medical department of Niagara University for being among the first institutions to recognize the importance of the study of mental diseases. He gave it as his opinion that, generally speaking, insanity was curable in its first stages. He emphasized the value of early treatment. Dr. Crego also spoke interestingly on the subjects of intemperance and crime, treating them from the pathological standpoint.

After the administration of the college oath by Dr. John Cronyn, the degrees were conferred by the chancellor, Bishop Ryan, according to the usual custom adopted in this University—namely, hooding. This interesting ceremony may be briefly described as follows:

The candidates are presented to the chancellor in a Latin introduction, which recites the fact that the candidate is entitled to the

degree of Doctor of Medicine, and then each kneels before the chancellor, who holds the candidate's hands in his and recites the Latin phrase conferring the degree, while an alumnus of the college invests him with the crimson hood, which was worn by the graduates present upon the stage.

The following are the members of the graduating class:

John Anderson, Toronto, Ont.; William James Austin, Niagara Falls; Bernard Hugh Brady, North Java; Marshall Clinton, Buffalo; Arthur Victor Conley, Buffalo; Edward James Cook, Buffalo; John Havemeyer Daniels, Buffalo; James Sandwick Dawson, Little Current, Ont.; Peter Adolphus Edelsward, Buffalo; Anna Earl Hutchinson, North Evans; Richard Kimpton, Buffalo; William Costigan Lewin, Buffalo; Murray F. Mudge, Gasport; George Marion Nye, Wellsville; Charles Augustus O'Dea, Erie, Pa.; William Priess, Tuscarora, Ont.; Bion Elmer Smith, Angola; Henry Smoyer, Pendleton Center.

The three gentlemen having the highest standing in the final examinations were Mr. Daniels, first; Mr. Conley, second; Mr. Lewin, third.

Each candidate was applauded when his name was called and when the chancellor conferred the degree. To Miss Anna Earl Hutchinson, of North Evans, the woman member of the class of '95, was given a perfect ovation when her name was read. The applause continued as she walked upon the stage and did not cease until she stood before Chancellor Ryan to receive her degree.

When the degree had been conferred, the Very Rev. P. McHale, president of Niagara University, arose to address the graduating class. His address was able, timely and scholarly. He criticised the modern trend of thought as empirical and as resting upon no solid foundations. He argued that there could be no permanent conflict between science and religion, since the sources of both were the same. The religious factor could never be eliminated from the factors that made for human progress. Christianity must enter into every rational scheme of education. It was written indelibly across the true civilization of the day. Mr. McHale spoke eloquently on the advantages of a liberal education, and closed by welcoming the graduates to the ranks of those who devote themselves to the highest interests of civilization.

Bishop Ryan spoke a few words of congratulation to the members of the class upon the successful completion of their course.

At the close of the ceremonies at the Academy of Music, the

faculty, alumni and invited guests repaired to the Hotel Iroquois, where the annual banquet was held. The tables, prepared for about 100 people, were well filled by 10 o'clock, when a well-appointed dinner was served in the main dining-room of the hotel.

Occupying a prominent seat was Dr. Anna E. Hutchinson, of the class of '95, the first woman graduate of the medical department of the University. Other seats on the right of the president of the alumni, who acted as toastmaster, were occupied by Drs. Cronyn, Lothrop and Banta. On his left sat Dr. Joseph M. Mathews, of Louisville, Hon. E. B. Jewett, mayor, Dr. W. W. Potter and Dr. Wm. H. Pitt. After doing ample justice to the dinner and while coffee and cigars were serving, Dr. Dooley, the toastmaster, arose and in appropriate remarks introduced Mayor Jewett, who responded to the toast, The City of Buffalo. The Mayor called attention to the fact that on the basis of exports and imports Buffalo stands the sixth commercial city of the world, being outstripped only by London, Liverpool, New York, Hamburg and Chicago. He spoke of Buffalo as the "Electric City," and said that with the increasing importance of the manufacturing industries, the population of the city might be confidently expected to be well on toward the million mark by the end of the present century.

The Rev. Father Grace responded to Old Niagara, and spoke entertainingly on the Cataract and the College. George H. Kennedy, of the faculty of the law department, spoke on Law, especially considered from the viewpoint of medical jurisprudence. The Hon. T. V. Welch, superintendent of the state reservation at Niagara Falls, spoke on Nature, M. D. His address was humorous and interesting. Old Kentucky inspired Dr. Joseph M. Mathews, of Louisville, to an impassioned flight of oratory, which was generously applauded, and Dr. Henry Smoyer, of '95, spoke to the toast of The Class of '95.

It was long after midnight when the guests separated and the early hours of Friday, May 17, 1895, witnessed the closing scenes of one of the most enjoyable commencement days in the history of Niagara University Medical College.

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Christian Science and Faith Cure are having a struggle for existence in New Hampshire, as a bill is now pending before the legislature making their practice illegal and punishable by fine.—*Chicago Medical Recorder.*

## TOPICS OF THE MONTH.

The New York Academy of Medicine held memorial exercises on Thursday evening, May 3, 1895, in recognition of the character and work of the late Dr. Alfred Lebbeus Loomis, a former president of the academy and one largely instrumental in building the present handsome structure in West Forty-third street.

Dr. Joseph D. Bryant, president of the academy, presided at the meeting, and addresses were made by Dr. Lewis A. Stimson, Chancellor Henry M. MacCracken, ex-Mayor Abram S. Hewitt, Dr. Reginald H. Sayre and others. Among the leading physicians of the city who attended the services were Drs. S. S. Purple, A. Jacobi, R. C. M. Page, Charles MacBurney, J. P. Munn, Virgil P. Gibney, W. H. Thomson, J. E. Winters, C. C. Rice, L. L. Seaman, M. H. Katzenbach, J. F. Erdman, A. E. Macdonald, W. M. Polk and W. Lester Carr. The family of Dr. Loomis were present by invitation, and many women were in the large audience.

Dr. Stimson, in his address, spoke of the fact that Dr. Loomis feared that he would not live until he was thirty, knowing that he had inherited consumption. Dr. Loomis, he said, was elected president of every society of which he was a member, and in every case the honor came to him unsought. He became a fellow of the Academy of Medicine in 1863, was elected a trustee in 1885 and was chosen president of the academy in 1889. He founded two hospitals for the treatment of consumptives in the country.

Chancellor MacCracken spoke of Dr. Loomis's work in the medical college and of the founding of the Loomis Laboratory in connection with the college. He also spoke of Dr. Loomis as a man.

Mr. Hewitt in his address spoke of the work which Dr. Loomis had performed as a citizen, and said that when he was mayor of the city he had consulted Dr. Loomis repeatedly about health matters.

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The injustice done the medical corps of the U. S. Navy in according to the members inferior rank and pay, has long been known as a standing disgrace to the government. It is only second to that other scandal whereby junior officers are promoted over seniors—a method that deserves the execration of every intelligent American citizen. With a view to correct the former evil, Dr. P. H. Millard, of Minneapolis, introduced the following preamble and

resolutions at the late meeting of the American Academy of Medicine in Baltimore, which received the unanimous approval of the academy :

*Whereas*, Membership in the medical corps of the Navy of the United States from having been, through its high professional attainments, once eagerly sought by graduates of medical colleges, has ceased to be attractive to them, so that it is no longer possible to fill its vacancies ; and

*Whereas*, It is believed that this is due to the inferior rank given to entrants to the corps and their assignment, when at sea, to quarters in the steerage with undergraduates of the Naval Academy and civilian paymaster's clerks, while the young medical officer of the army begins his career a grade higher and in the commissioned officers' mess ; and

*Whereas*, The professional requirements and qualifications, the professional duties and obligations of the medical officers of the army and navy are identical, therefore, be it

*Resolved*, That the attention of the Senate and House of Representatives of the United States be invited by the American Academy of Medicine to this inequality, and that the naval committees of the two houses be urged to inaugurate such legislation as shall confer upon the officers of the medical corps of the navy the same status, pay and emoluments as are now accorded to the medical officers of the army.

*Resolved*, That this resolution be printed and copies of it, certified by the president and secretary of the association, shall be sent to the President of the United States, the secretary of the navy and to every member of the Fifty-fourth Congress.

Similar action was taken by the American Medical Association a day or two later. We hope these two influential bodies will follow up their action by urgent demands until congress comes to the relief of the naval medical corps.

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Dr. Albert L. Gihon, medical director U. S. Navy, presented a report as chairman of the committee on the Rush monument at the recent meeting of the American Medical Association, which possesses many points of interest. The report regretfully stated that there was in the hands of the committee, at this date, only $3,094.39. Dr. Gihon said this was a reproach to the medical profession in this country and compared very unfavorably with the success of the American Surgical Association, which has collected all the funds necessary for the projected statue to the distinguished surgeon, Samuel Gross, of Philadelphia.

Dr. Gihon gave a brief sketch of Dr. Benjamin Rush, the soldier

physician of the Revolution and signer of the Declaration of Independence, and paid an eloquent tribute to his patriotic services to the nation and the benefits he had conferred upon the profession. Dr. Rush died a victim of typhus-pneumonia, at the age of 68, while battling with the great epidemic of 1813. His portrait, by Sully, hangs in the reception-room of the Pennsylvania Hospital.

Dr. Gihon closed by saying that his committee had selected the site for the monument in the City of Washington, and he would guarantee that Congress would furnish the granite base or pedestal. The bronze statue with which it is proposed to surmount this is estimated to cost between $20,000 and $25,000.

Dr. H. D. Holton, of Vermont, arose during the applause that followed the reading of the report, and, warmly seconding the sentiments expressed by the latter, offered himself as one of a hundred members of the association to subscribe $100 each. His offer was closely followed by similar offers of $100 each on the part of Dr. W. H. Daly, of Pittsburg; Dr. John A. Wyeth, of New York; Dr. O. H. Wingate, of Wisconsin; Dr. H. O. Marcy, of Boston; Dr. J. M. Keller, of Arkansas; Dr. S. M. Free, of Pennsylvania; Dr. Jerome Cochran, of Alabama; Dr. Alonzo Garcelon, of Maine; Dr. J. M. Ridge, of New Jersey; Dr. I. N. Love, of St. Louis; Dr. B. D. Evans, of New Jersey; President Donald Maclean, of Michigan, and Dr. O. D. Will, of Peoria, Ill. Dr. J. M. Reeves, of Chattanooga, Tenn., and Dr. A. C. Cotton, of Chicago, gave $50 each, and Dr. Patrick Espy, of Norwich, Ct., gave $25. Dr. John A. Wyeth, of New York, offered to be one of six members to subscribe $500 apiece. The total subscriptions received during the day amounted to $2,257, including the smaller amounts subscribed after the meeting. A motion was passed that each member of the association act as a committee of one to solicit subscriptions for this fund from the whole medical profession of the country.

On motion of Dr. Daly, of Pittsburg, the thanks of the association were extended to Dr. Gihon for his work in behalf of the monument, the report of the committee was ordered to be published in full in the *Journal*, and the committee was continued.

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The American Medical College Association, at its recent meeting in Baltimore, took most important action looking to the establishment, in the near future, of four years' courses in all the colleges holding membership in the association. The differences existing

between the Southern College Association and the National body were adjusted and an amalgamation of the two organizations effected.

The resolution advancing the standard to four years' study as a minimum, including collegiate training, was then unanimously adopted as above indicated. It ought not now to be difficult to obtain an act of the New York legislature rendering it unlawful for the medical colleges in this state to grant diplomas after less than four years' collegiate training.

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The *Montreal Medical Journal*, in a recent issue, makes the following appropriate comments upon an unjust tax :

We believe that the Canadian Government stands alone among the governments of the civilized world in exacting a duty on the diphtheritic antitoxin. It is difficult to understand the short-sighted policy of instituting such a tax. We are informed that a few of the first importations of the diphtheritic antitoxin were admitted free, but that the officious officials decided that a duty of 50 per cent. should be levied in future.

It is to be hoped that this and similar unjust taxes will soon be done away with. Now that the cabinet have a medical man among their number, this hope may be realized. The taxing, and that heavily, of nearly all instruments, appliances and apparatuses used in the investigation and treatment of disease is a matter that has been repeatedly brought to the notice of the Canadian Government, but without any result. Such a tax is a great hindrance to the advance of the profession. It is not only felt by practitioners in their private work, but also by hospitals. All suffer—the rich as well as the poor.

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The Journal has, on several occasions, commented on the foghorn nuisance to which Buffalo has been subjected during the past two years. There is no doubt that it has driven people out of the city who, otherwise, gladly would have remained here. Again, it has impaired the health of others by preventing sleep when most needed, and has in many other ways jarred and irritated over-strained nerves.

At last it seems we are in a fair way to obtain partial relief, at least, thanks to the kind offices of Hon. E. B. Jewett, our able and efficient mayor. A communication from him on the subject to the government at Washington brought quick response, and the lighthouse officials of this district are reported to have agreed upon a plan whereby a sounding-board is to be erected, and the whistle is

to be blown less frequently—both of which will tend to modify, if not abate, the nuisance. Let us as a people exclaim to the light-house board and to Mayor Jewett especially : For this prospective relief, much thanks !

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We have received the following clever verses that we print in this department of the Journal, for, in the absence of our biologic editor, who attends to such details, we are at a loss just where to place them. However, like the celtic rabbit, they are good no matter when, where or how served :

*(Respectfully dedicated to our City Bug-hunter. By S.)*

Where schizomycetes grin in glee,
  Where microbes dig their holes,
Where germs feel free, to split in thee,
  And delight in their septic souls ;
Where the small, still sobs of the spores endure
  And blue bacilli bore,
Where of cultures pure, an adjacent sewer,
  Will always furnish a score,—
Some certain cocci, duplex and small,
  (They were born at Woodlawn the previous Fall
And by agile turn and twisting flight
  Had escaped the maw of the phagocyte),
Were mourning each to the other twin—
"What sort of a place is this we're in ?"

Time was when they lived where their fathers died ;
  In a giant columnar cell,
Then woe betide that Devil they spied
  As they frisked in Bocaccio's hell.
Now, 'twas, "Oh ! for a lodge in the vestibule
  Or some other place near kin,
As was the rule in the Skene's tubule,
  For we can't grow in gelatine."
And 'twas "Oh ! for the grim and fierce delight
  Of the duel to death with a leucocyte ;
Once again to laugh in specific pride,
  At the impotent chemical and germicide,
And to mock at the organisms they defied
The bacilli, spirilli, side by side."

And 'twas "Oh ! to infect the fresh, fresh youth
  And his giblets old and gray ;
And the jay uncouth, as with Sal and Ruth
  He sports in the new mown hay."

And 'twas "Oh ! to breed in the infant's eye
  And make them greatly swell,
As the poor kid cried, the thing defied
  It raised a merry—(WELL)!"
'Twas the same where'er they did go
  They infected everything, nearly so ;
Nary a spore grew weak or lean,
  The venom departed as a new ptomaine,
And whatever spot they smote
No one found an antidote.

Let the staphylococcus laugh long and loud
  At the sounds of the helpless wail,
Though our heads be bowed, no putrid crowd
  Such honor as ours assail.
We've snapped many a streptococcus's chain,
  Hushed many a bacillus's bray,
And his search be vain, who will look for a stain
  On the record we hold today.
Come death to us, not a bit,
  Excepting that storming, steaming pit,
And never will our words belie,
  As long as our bug-hunter is handy by,
But neither in culture, in mucus, or pus,
Has Bissell, himself, found "flies on us."

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## Obituary.

DR. JOHN W. BYRON, chief of the bacteriological department of the Loomis laboratory, died recently in New York, aged 35 years, from tuberculosis, contracted, it is believed, while working in his laboratory.

A year ago, when he sailed for Europe, he told his friends, speaking in the coolest manner possible, that he had by accident received some of the bacilli of tuberculosis while experimenting with the culture of the germs, and that they were playing havoc with his lungs. He added that they might kill him, but that he had an idea that a remedy was possible and that he was going to Europe to get it.

Sadly enough it proved otherwise, and he returned last Fall knowing that he was doomed. He continued his work, however,

as chief of the bacteriological department of the Loomis laboratory until a very few days before his death. Dr. Byron was one of the most eminent specialists in this study in this country, and was fearless in exposing himself to diseases which are the result of infectious bacilli. He gained a national reputation in 1892 by going to Swinburne Island when the cholera patients were quarantined there, and staying until the last victim had recovered.

The work of the bacteriologist among the virulent germs of loathsome diseases, it is shown by Dr. Byron's death, is attended by grave risks, and his heroic self-sacrifice cannot fail to lift him and his professional comrades up to a higher plane in the estimation of the world at large, for their sacrifice is on behalf of suffering humanity.

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## Personal.

Dr. Allen McLane Hamilton, of New York, sailed for England Saturday, May 11, 1895. It is announced that it is Dr. Hamilton's intention to live in London hereafter during May, June, July and August, the London season. He has rented a house for that period and will open an office. A considerable part of Dr. Hamilton's practice has for a long time been among foreigners and Americans that live abroad, and his opening an office in London has been in response to oft-repeated requests on the part of those clients. He will practise in New York the other part of the year, arriving home when his patients begin to return from the summer outings, so that his home practice will not be interfered with. The precedent of American physicians practising part of the year in London was established, we believe, by Dr. S. Weir Mitchell.

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Dr. Henry J. Mulford, of Buffalo, has removed from 56 Allen street to 466 Franklin street, where he will continue to give special attention to diseases of the nose and throat. Hours 9 to 12.

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Dr. George W. Pattison, of Buffalo, has removed from 17 Court street to 22 West Chippewa street.

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Dr. Frank J. Thornbury was elected president of the Buffalo Microscopical Society at the annual meeting held April 8, 1895.

# Society Meetings.

The Association of Military Surgeons of the United States held one of the most interesting meetings in its history at Buffalo, May 21, 22 and 23, 1895. The opening session was held in the Star theatre, Tuesday morning, May 21st, at which time the addresses of welcome were delivered and the president, Brigadier-General George M. Sternberg, M. D., Surgeon-General U. S. Army, pronounced the annual address.

The scientific meetings of the association were held at the University of Buffalo, beginning Tuesday afternoon and continuing during Wednesday and Thursday. On Tuesday evening an informal reception was held at the Iroquois, during which there was music and a collation served by Messrs. Wooley & Gerrans, the proprietors.

On Wednesday evening, May 22d, the doors of the Buffalo Club were thrown open to the visitors and a reception was held that did credit to the club, which is noted for its royal hospitality. Thursday, P. M., a carriage drive was given the association, which halted at Fort Porter, where the United States troops, under command of Major Daggett, were reviewed by Surgeon-General Sternberg, preceded by a brigadier-general's salute of eleven guns. In the evening a parade, review and promenade concert was given at the state arsenal by the 65th Regiment, National Guard. Friday an excursion was had to Niagara Falls. So ended an eventful meeting. The scientific work of the association is rated as above the average and a handsome, useful volume will result.

The officers for the ensuing year are: President, Louis W. Read, colonel and surgeon-general N. G. Pa., Norristown; vice-president, Albert L. Gihon, medical director U. S. N., Washington, D. C.; second vice-president, Col. Chas. H. Alden, assistant surgeon-general U. S. A.; secretary, Eustathius Chancellor, lieutenant-colonel and medical director N. G. Mo., St. Louis; treasurer, Lawrence C. Carr, major and surgeon, N. G. Ohio, Cincinnati; editor, Col. P. F. Harvey, major and surgeon U. S. A.

President-elect Read was formerly vice-president of the association. Vice-President-elect Gihon held the office of second vice-president. Secretary Chancellor and Treasurer Carr were both re-elected.

In the absence of President-elect Read, the vice-president appointed the following to serve as the executive committee: Col. Senn, ex-officio, Col. Chas. H. Alden, U. S. A., ex-officio, and Gen. J. D. Bryant, Gen. E. J. Foster, Massachusetts; Gen. Budding, Rhode Island, and Major A. H. Briggs, Buffalo.

It was decided to hold the next convention in Philadelphia.

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The Medical Society of the County of Erie will hold its regular semi-annual meeting on Tuesday, June 11, 1895, at the rooms of the Buffalo Academy of Medicine at 10 o'clock in the morning, under the presidency of Dr. F. W. Bartlett, of Buffalo.

## Hospital Note.

A competitive examination of candidates for positions as house physicians in the Erie County Hospital will be held at the hospital, Buffalo, N. Y., on May 28, 1895, at 3.30 o'clock P. M. There are three vacancies to be filled June 1st. All applications should be addressed to Dr. E. J. Gilray, medical superintendent of the hospital.

## Medical College Notes.

The University of Buffalo has added a new department—namely, the department of pedagogy. A faculty has already been chosen in part, and Mr. B. B. Glenny made a member of the council of the university to represent this department. Lectures will begin in September, and it may be confidently predicted that this much-needed school will prove a success. It will be modeled after the best schools of pedagogy in this country.

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The Albany Medical College graduated a class of forty-seven April 16, 1895. The alumni association held its twenty-second annual reunion. The report of the recording secretary shows the alumni roll to be 1,243; total number of graduates, 2,055. The following were elected as officers: Shobald Smith, '83, of Washington, president; corresponding secretary, J. B. Stonehouse, '75. —*Medical Standard.*

# Book Reviews.

Clinical Gynecology, Medical and Surgical, for Students and Practitioners. By Eminent American Teachers. Edited by John M. Keating, M. D., LL. D., and by Henry C. Coe, M. D., M. R. C. S., Professor of Gynecology, New York Polyclinic. Illustrated. Octavo, pp. xviii.—994. Philadelphia: J. B. Lippincott Co. 1895.

Without attempting to discuss the propriety of the appearance at this time of another treatise on gynecology, we shall proceed to an examination of this work on its merits.

The book opens with an introductory chapter by the late Dr. William Goodell. While this is interesting in many respects, especially to those who have not read the author's "lessons," yet we are somewhat at a loss to reach an estimate of either its value, or the propriety of increasing the bulk of the book twenty-five pages for the purpose of affording a display of classic knowledge or facile writing.

In the first chapter of the treatise proper are considered the methods of gynecological examination and general outlines of differential diagnosis, by Drs. William H. Baker and Francis H. Davenport. These authors are quite competent to deal clearly, comprehensively and succinctly with these important subjects that present themselves at the very threshold of gynecological knowledge. That they have done so in the present instance may readily be determined by a careful examination of the important chapter that they have prepared. While many of the methods are those that are in constant use by intelligent gynecologists, particular interest centers around the examination of the ureters and bladder. Here the latest information on the subject will be found.

An elaborate section on gynecological technique is presented by Dr. Hunter Robb that is very completely illustrated. The impetus that bacteriological research has given to clean surgery is here unfolded in all its amplifications, yet we think it is carrying the matter to an extreme for an author to recommend an especially constructed razor in an elaborate case to which he attaches his name. The fact is that there is too great a multiplication of instruments and paraphernalia connected with gynecological and surgical practice. There should be on all hands a greater attempt to simplify. Few instruments, scrupulous cleanliness, minute attention to detail and careful preparation are the cardinal points of success that should be carefully pointed out and insisted upon by surgical and gynecological teachers.

The third chapter gives an outline of gynecological therapeutics and is written by Dr. Bache McE. Emmet. Here is an opportunity for much sound suggestion and teaching, and Dr. Emmet proves himself quite competent to deal with the subject that he has undertaken on the lines indicated. It is important that young girls, as they approach puberty, should be subjected to more

hygienic care than has been usual ; and especially is it important that their school life should receive discreet supervision. Here is afforded the greatest field that preventive medicine, as applied to gynecology, possesses. We could wish that Dr. Emmet had enlarged upon this portion of the subject, but, in the main, he has done well—better than most authors in similar treatises.

In the next chapter we find considered anomalies of development in the genital tract, by Dr. Barton Cook Hirst, a section which is interesting alike to the biologist and teacher. While it is necessary, to complete such a treatise as this, to introduce this history, and is a curiously interesting part of it, it has less practical importance than most of the other sections.

In the fifth chapter are considered traumatic lesions of the vulva, vagina and cervix, by Dr. Matthew D. Mann, of Buffalo. While this is a well-written chapter, its especial strength, to us, seems to be in its operative technique. It is very brief in its consideration of the injuries due to external violence and coitus, though more elaborate in those caused by parturition. It seems to us that this chapter might have been much extended with interest and profit by so experienced a teacher as its distinguished author.

A chapter that will attract considerable attention is that on inflammation of the female genital organs, written by Dr. William M. Polk, of New York. This is especially the case of that portion of it which deals with pyosalpinx and its correlated conditions. Collections of pus within the pelvic cavity has especial interest nowadays, in view of the recent revelations concerning gonorrhea as a causative factor of pelvic inflammation. It is a matter of some doubt whether there are any pelvic pus collections that are not due either to gonorrhea, parturition, abortion, ectopic pregnancy, or unclean hands or instruments. There is not much use in wasting time over the old-fashioned pelvic cellulitis. When pus exists in the pelvis it generally must be sought by abdominal section ; exceptionally through the vagina. The latter has been termed most aptly as the Dismal Swamp method.

Genital tuberculosis is considered in the seventh chapter by Dr. J. Whitridge Williams, of Baltimore. Recently this subject has attracted attention among surgeons and gynecologists, hence a chapter on this subject by so competent an author finds an appropriate place in this volume.

In the next chapter we find inflammatory lesions of the pelvic peritoneum connective tissue well handled by Dr. Henry T. Byford, of Chicago. It is astonishing how easy it is to write out a good diagnosis of these lesions in a text-book, but it is amazingly difficult to differentiate them at the bedside. We hope this chapter may aid in solving this difficult problem for some of its readers.

The next subject is displacements of the uterus, which is considered by Dr. Paul F. Mundé, of New York. This author is especially fitted to handle this subject well, and he has drawn upon

a large experience in setting it forth. The illustrations are well adapted to make the text clear, and altogether it is a most satisfactory exposition of the subject.

In the following three chapters, X., XI. and XII., are considered respectively, neoplasms of the vulva and vagina, benign neoplasms of the uterus, and malignant neoplasms of the uterus, all written by Dr. Hermann J. Boldt, of New York. These subjects form one of the most important, as well as the most interesting, departments in gynecological literature, and this author has done himself great credit in the admirable setting forth that he has given them.

Not second to the foregoing subject is that of neoplasms of the ovaries, tubes and broad ligaments, which is ably considered in Chapter XIII. by the surviving editor, Dr. Henry C. Coe, of New York. This and the three preceding chapters furnish the subject for an entire treatise, and it is along these lines that we should approve of a new treatise in the gynecological field. Already material enough has accumulated, and we could wish it would be put in permanent form in a separate treatise for study and reference. Dermoid cysts furnish a most interesting study, and we think Dr. Coe might have elaborated this subject with considerable profit. Complications of ovarian tumors is also an interesting study, especially when associated with pregnancy. The propriety of operating in these latter cases is no longer doubted.

The chapter on ectopic pregnancy is written by Dr. William T. Lusk, of New York, who is an experienced author and teacher, but we think that he has hardly met expectation in this instance. This section could have been considerably elaborated in pathology as well as operative treatment, hence it follows that an operator of large experience might better have written it.

Passing on, we note that functional diseases are considered by Dr. Chauncey D. Palmer, of Cincinnati, in a well-prepared chapter on that subject. Diseases of the urethra, bladder and ureters are considered in Chapter XVI., by Drs. Charles Jewett and John O. Polak. In this we find the old familiar pictures that have done duty in the journals and *Twentieth Century Practice* prepared by the gynecologist of Johns Hopkins Medical School. Diseases of the rectum and anus are considered by Dr. E. E. Montgomery and many of the illustrations in this chapter have been published in the transactions of the American Association of Obstetricians and Gynecologists and in the JOURNAL.

One of the most important chapters in the book, whether estimated from its surgical value or scholarly treatment, is that on diseases of the female breast, by Dr. Dudley P. Allen, of Cleveland. Every surgeon will appreciate this section, which is a valuable addition to the literature of the subject.

The volume closes with a chapter on cutaneous diseases peculiar to women, written by Drs. Lewis A. Duhring and Milton B. Hartzell.

During the preparation of this work, the senior editor, Dr. Keating, died, which devolved the delicate task of its completion upon Dr. Coe. That he has performed his part ably and satisfactorily it is pleasant to state. His part has been a difficult one, and it is not easy to discover how he could have improved upon his opportunity. This volume is handsomely illustrated in many respects, and must be regarded as a distinct addition to gynecological literature, but its chief claim to the favor of the profession will be through the fact that it is a symposium of the American Gynecological Society.

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Surgical Pathology and Therapeutics. By John Collins Warren, M. D., Professor of Surgery, Medical Department Harvard University; Surgeon to the Massachusetts General Hospital, etc. Octavo volume, pp. 832, with 135 illustrations. Price, cloth, $6; half-morocco, $7.00 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

It has been necessary to reconstruct the most important or foundation principles of surgical pathology since the germ theory of disease has become established through the science of bacteriology. Hence it is not at all remarkable that we find the first seventy-eight pages of this work exclusively devoted to the consideration of the study of microörganisms. But the subject does not end here; it pervades almost every chapter in the book, and especially is it well brought out in the sections on infective inflammation. The author's treatment of this latter topic may be regarded as a surgical classic. It affords the most delightful reading on the subject that has ever fallen to our vision, and almost every sentence is instructive.

Tuberculosis is taken up in Chapter XXIV., and here again the author stands out in bold relief by his original treatment of the subject, to the consideration of which, in its multifarious forms, he devotes nearly 100 pages. When we reflect upon its importance, this is not too much space to allot to its discussion. Only lately has tuberculosis begun to attract surgeons, but already it has become of absorbing interest to them. Warren asserts that the surgeon has, in fact, more to do with the disease today than the physician, which is a surgical truism. He tells us that the inoculability of tuberculosis was first recognized by Laënnec in 1826, who, himself, fell a victim to its surgical infection. Villemin, in 1865, first demonstrated experimentally the possibility of its transmission from man to animals, while Koch's discovery, in 1882, fairly revolutionized this great department of surgery. Warren's observations on the treatment of tuberculosis of bones and joints is the best surgical exposition of the subject we have seen, while his chapter on tuberculosis of the soft parts, in many respects, is unique. The chapter on aseptic and antiseptic surgery, which is placed at the end of the book, should be read by every physician as well as surgeon. It is a fitting anti-climax to the opening chap-

ters on bacteriology. In an appendix Warren briefly considers several surgical topics of interest.

To appreciate this book it should be read, for then its pure English and delightful rhetoric will charm every lover of good medical literature, while it teems with sufficient originality, either of thought or practice, to become a necessity for every surgeon. It is handsomely printed, and some of its illustrations, many of which are quite new, are especially fine.

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MATERIA MEDICA AND THERAPEUTICS FOR PHYSICIANS AND STUDENTS. By JOHN B. BIDDLE, M. D., late Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia. Thirteenth edition, revised, re-arranged and enlarged, with special reference to therapeutics, toxicology, the physiological action of medicines and containing all the preparations and remedies described in the United States Pharmacopeia of 1890, to which the work has been made to conform. By Clement Biddle, M. D., Medical Corps, United States Navy. With numerous illustrations. Octavo, pp. 714. Price, $4.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1895.

This treatise has been before the profession so long that it may be regarded as an old friend. It was first issued in 1865; hence, for thirty years it has been used as a text-book or a work of reference. The author died in 1879 and subsequent editions have been edited by Dr. Henry Morris and Dr. Clement Biddle of the United States Navy. The ninth, tenth and eleventh editions were written conjointly by these two; the twelfth and thirteenth by the latter alone.

In the present edition the same order has been observed, wherever it has been practicable, as in the preceding one so far as the consideration of each drug or remedy is concerned. In presenting the physiological effects of drugs, the following plan has been followed—namely, first, local action comprising analgesic, irritant, antiseptic and pupillary effects; second, internal action beginning with taste and following with effects upon the stomach, secretions, nervous, vascular, respiratory and muscular systems, temperature and elimination.

This edition is intended to include all preparations considered in the United States Pharmacopeia of 1890, hence the newer additions to the list will be found in this book. Various changes have also found place, especially as regards the application of remedies to the eye and throat, the dispensing of disagreeable medicines in capsules and tablet triturates, the kinds of enemata in use and instructions for making poultices. A new order termed protectants and absorbents is introduced under the head of topical medicines, and the ferruginous preparations are transferred from tonics to hematinics.

This edition is increased seventy-five pages, by the addition of fifteen pages to the work proper and sixty pages to the appendix.

An amplified index to contents and to diseases and remedies has received careful revision, increasing its value and the ease with which it can be referred to. The editor especially desires that one discovering errors in the book will report the same to him, that corrections may be made in future editions. Any such will be duly acknowledged.

The reputation of this work as one of the very best treatises on materia medica and therapeutics, which it has so long enjoyed, is fully sustained in this thirteenth edition.

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Sexual Neurasthenia: Its Hygiene, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous. By George M. Beard, A. M., M. D., formerly Lecturer on Nervous Diseases in the University of the City of New York; Fellow of the New York Academy of Medicine, etc., etc. Edited, with notes and additions, by A. D. Rockwell, A. M., M. D., formerly Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital, etc., etc. With formulas. Fourth edition. Octavo, pp. xii.—294. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. 1895.

The popular demand for this book is indicated by the fact that four editions have appeared in a little more than ten years. Its earlier editions have received commendatory notices at the hands of the Journal, hence there is no occasion for extended review at this time. The class of subjects that suffer from sexual neurasthenia deserves not only the greatest sympathy but the kindliest attention that science can bestow. Many a useful hint in the management of such sufferers can be obtained from a careful reading of this volume. In former editions there is nothing to cover a class of cases that is in a state of continual sexual excitement. Therefore, the editor has added a chapter to this edition entitled sexual erethism.

The book is uniform in size and style with the medical classics which Mr. Treat has been publishing for some years.

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Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In twenty volumes. Volume II. Nutritive Disorders. New York: William Wood & Co. 1895.

The opening article of this volume treats of Addison's disease and other diseases of the adrenal bodies, and is written by Sir Dyce Duckworth, of London. It contains the latest information regarding these somewhat obscure diseases. The next section is devoted to the consideration of diabetes mellitus and is written by Professor Carl von Noorden, of Frankfort. The subject of treatment is here very ably handled and will be a welcome contribution to the literature of the subject.

The third division consists of an exhaustive monograph on rheumatism, from the pen of Dr. T. J. Maclagan, of London, who is the well-known originator of the salicylic treatment of this disease, hence his contribution will be eagerly sought. The fourth department is given up to the consideration of gout, to which over 200 pages is set apart. It is written by Dr. Henry M. Lyman, of Chicago, and is the most noted contribution to the literature of this disease that has yet appeared.

The fifth section treats of arthritis deformans and is written by Dr. Archibald E. Garrod, of London. Here is a subject, the literature of which is great while our knowledge of it is small. Dr. Garrod has done something, however, to increase it.

The next title is by Dr. Dujardin-Beaumetz, of Paris, lately deceased. The subject of it is diseases of the muscles, to which less attention has been given than the subject deserved, but this distinguished clinician has added much to our knowledge of it.

Finally, Professor M. J. Oertel, of Munich, presents an interesting dissertation on the subject of obesity, which is almost next in importance to the wasting of the human body. An excellent index serves to make the volume one of easy and ready reference. It is commended to the profession as a valuable collection of monographs, setting forth the latest information on the diseases which it considers.

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A Manual of Bandaging. Adapted for Self-Instruction. By C. Henri Leonard, A. M., M. D., Professor of the Medical and Surgical Diseases of Women, and Clinical Gynecology in the Detroit College of Medicine. Sixth edition, with 139 engravings. Cloth, 8vo, 189 pages. Price, $1.50. Detroit, Mich.: The Illustrated Medical Journal Co., Publishers.

This book is so popular as to demand a sixth edition. Its chief claim to favor is in the brevity and clearness of the text, but especially in the excellence of its illustrations. To bandage well is an art, and every young physician should cultivate it. This book will prove to him a great aid in perfecting this important surgical accomplishment.

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Antisepsis and Antiseptics. By Charles Milton Buchanan, M. D., Professor of Chemistry, Toxicology and Metallurgy, National University, Washington, D. C., with an introduction by Professor Augustus C. Bernays. Duodecimo, pp. 368. The Terhune Company: Newark, N. J. 1895.

This small volume presents in convenient form a condensation of the views of the best exponents of asepsis and antisepsis as understood at the present time. A practical knowledge of antiseptic technique is absolutely necessary to the successful practice of surgery, gynecology and obstetrics. Moreover, it is important that every physician shall be well versed in the knowledge of

cleanliness as implied by the best surgical definition of the term. Infection must be prevented if possible. This book gives a history in its first four chapters of the subject from the earliest times down to the present. In other seven chapters it deals with the practical aspects of asepsis and antisepsis. It deserves to be well read, but it is a pity that it is so poorly printed. The least said about its engravings the better.

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Suggestions to Hospital and Asylum Visitors. By John S. Billings, M. D., Director of the Hospital of the University of Pennsylvania, and Henry M. Hurd, M. D., Superintendent of the Johns Hopkins Hospital. With an introduction by S. Weir Mitchell, M. D. Price, 50 cents. Philadelphia: J. B. Lippincott Co. 1895.

This manual is based upon the idea that most hospital visitors are ignorant of their duties, at least when first appointed, which is undoubtedly correct. Most such will be glad to possess this little book, which will give them valuable hints, and aid in removing embarrassment when they begin to exercise their functions. It is written by experienced men, and is of a size convenient for the pocket.

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The Physicians' Vade Mecum. Being a Hand-book of Medical and Surgical Reference, with other Useful Information and Tables. By Sebastian J. Wimmer, M. A , M. D., Author of Tables and Notes on Human Osteology, etc. With additions by Frank S. Parsons, M. D. Price, $1.00. Philadelphia: The Medical Publishing Co. 1894.

This little work is full of useful information, condensed and made available for ready reference. It contains many hints for carrying out simple procedures that are generally considered so common-place or so well understood as to need little or no elaboration in large treatises or text-books; hence, will find an easy place on the shelves of students, young physicians and druggists. The latter especially will find it of great benefit.

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Dose-Book and Manual of Prescription-Writing, with a list of the official drugs and preparations and also many of the newer remedies now frequently used, with their doses. By E. Q. Thornton, M. D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Saunders' New Aid Series. Small 8vo, pp. 334. Philadelphia: W. B. Saunders. 1895. Price, cloth, $1.25 net.

It would be very much to the credit of medical colleges if faculties would pay more attention to teaching proper methods of writing prescriptions. Physicians with fair classical culture often make sorry work of prescription writing, mixing subject and verb, singular and plural, nominative and accusative in inextricable confusion. The aid to be obtained from this book is valuable and

deserves to be studied carefully by every one who may be in doubt with reference to the proper construction of prescriptions. Its tables of weights and measures, English and metric systems, dosage, official and officinal drugs and preparations and description of newer remedies afford excellent means of reference. All physicians find it necessary to refresh their memories upon the subjects herein contained.

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## BOOKS RECEIVED.

A System of Surgery. By American Authors. Edited by Frederic S. Dennis, M. D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York; President of the American Surgical Association, etc., assisted by John S. Billings, M. D., LL. D., D. C. L., Deputy Surgeon-General, U. S. A. To be completed in four imperial octavo volumes, containing about 900 pages, each with index. Profusely illustrated with figures in colors and in black. Volume I., 870 pages, 422 engravings and two colored plates. Price, per volume, $6.00 in cloth; $7.00 in leather; $8.50 in half morocco, gilt back and top. Full circular free to any address on application to the publishers. Philadelphia: Lea Brothers & Co. 1895.

Weekly Abstract of Sanitary Reports issued by the Supervising Surgeon-General, H. M. S. Volume IX., Numbers 1 to 52. Washington: Government Printing Office. 1895.

Immunity, Protective Inoculations in Infectious Diseases, and Serum-Therapy. By George M. Sternberg, M. D., LL. D., Surgeon-General U. S. Army, Ex-President American Public Health Association, Honorary Member of the Epidemiological Society of London, of the Royal Academy of Medicine at Rome, of the Academy of Medicine at Rio Janeiro, of the Société d'Hygiene, etc., etc. One volume, 325 pages, octavo, bound in extra muslin, beveled edges, uniform with the other volumes of our *Medical Practitioners' Library*. Price, $2.50; in flexible morocco, $3.25. New York: William Wood & Co. 1895.

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## Literary Notes.

Messrs. William R. Warner & Co., of Philadelphia, have received from the Belgian government a decoration which is an additional tribute for the excellence and superiority of the firm's ready-coated pills and other pharmaceutical products, for which the house has a great name. The decoration is of most beautiful design, in gold and white enamel, taking the form of a Maltese cross, on the center of which, on a blue ground, is the inscription. A wreath in blue and gold surmounts the cross, the whole being topped by ribbon, tied in a bow, of the national colors.— *Philadelphia Inquirer.*

There comes to us from the *Ladies' Home Journal*, a very artistically gotten-up illustrated booklet of over 250 pages, called "5,000 Books," which serves as an easy guide to the best books in any department of reading. This guide is very well done. The best literary experts of New York, Boston and Philadelphia were engaged by the *Journal* to select the 5,000 books which it presents as the most desirable for a home library, and their work has been admirably carried out. Very clear, explanatory comments are given by these men of books, and besides there are given not less than 160 portraits of leading authors. No book will, perhaps, do so much to extend good reading as this guide, so carefully gotten up, so beautifully printed, and so generously offered, free of any charge, by the publishers of the *Ladies' Home Journal*. "5,000 Books" is unquestionably the best and easiest guide to a wise selection of books that has been issued for a long time.

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Another Book on Kola.—That the old, and yet new drug, Kola, is becoming of interest here as well as abroad, is apparent from the fact that Johnson & Johnson have issued three large editions of their monograph, Kola Illustrated. The last one, while small in size, is by far the handsomest of any in make-up and illustrations. It is brimful of concise and clear statements regarding the history, chemical properties, physiological action and therapeutic uses of the drug, and contains some very interesting reports upon the use of the drug in physical and mental labor, athletic training and exercise.

The author states that it has been written for "the busy physician." Certainly it contains all that is old and much that is entirely new, and in such a way as to be available to any who desire to study this drug.

Physicians may secure a copy by addressing the publishers, Johnson & Johnson.

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The *Medical Chronicle*, conducted by an editorial committee consisting of the professors and lecturers of the medical department of the Owens College and published at Manchester, is one of the very best of the English medical magazines. It is edited by Professors D. J. Lesch, William Jap Sinclair and A. H. Young. A new volume began with the April number, 1895, which presents every evidence of a progressive improvement that keeps it abreast of the medical science of the period.

Buffalo Medical and Surgical Journal

Vol. XXXIV. JULY, 1895. No. 12.

# Original Communications.

## SOME NEW FEATURES IN THE TREATMENT OF CLUB-FOOT.

By GREGORY DOYLE, M. D., Syracuse, N. Y.

There is no deformity of the human body more distressing than that of club-foot, and none which has more severely taxed the ingenuity of orthopedic surgeons.

The various modes of treatment and the many different appliances devised for its correction are nearly as numerous as the investigators of this interesting subject.

The etiology of congenital talipes is also a fruitful topic for discussion, but it is very evident to my mind when all the arguments are summed up that it is due to uterine pressure, and that only.

The treatment for correction cannot be commenced too early. The nurse should be instructed to turn and hold the deformed feet of the new-born babe in as nearly a normal position as possible as often as convenient, and to continue this practice, alternated with proper massage, until such time as the surgeon may deem it proper to operate.

This manipulation a is great adjuvant to subsequent surgical treatment when such is found necessary, as it tends to develop the weakened muscles and to bring into prominence the contracted tendons. In some very mild cases the deformity may be remedied by properly directed traction with adhesive straps. Cases that can be completely corrected by this means are, however, of the very mildest type.

Where the deformity is great and the contraction firm, nothing short of subcutaneous tenotomy will suffice. Many attempts have been made to correct this malformation by forcibly stretching the firmly contracted tendons and muscles with powerful instruments.

Instead of benefit accruing from this procedure much injury has been done, and cases that were amenable to proper treatment were thus rendered permanently incurable.

Subcutaneous tenotomy, when properly performed, is a perfectly safe operation, and will accomplish better results than any other manner of treatment. There are some tendons, however, which will be found difficult to completely divide subcutaneously without wounding adjacent vessels and nerves. In such cases it is far better to make the open operation. This may be done by opening down to the tendon, parallel with it, and dissecting it away from all attachments. It is then to be drawn upward from its normal position with a blunt tenaculum and completely divided. I have operated in this way many times and find it very satisfactory. Of course, complete asepsis must be maintained, otherwise the result may be unfortunate, as suppuration might develop and thwart the object of the operation.

After tenotomy I immediately place the foot in a normal position and retain it there with adhesive straps applied in such a manner as to hold it firmly. Some operators object to this procedure and claim that the foot should be left in its abnormal position for a few days after the operation. Their reason for this, no doubt, is that the space left by the retracted ends of the divided tendons will be filled with blood if farther drawn apart, which, they imagine, might interfere with reunion. We know that when the tendon of a contracted muscle is completely divided there will be an immediate separation of the ends, even when the foot is not held in a normal position. This precaution is, therefore, shown to be unnecessary.

It has been my practice to unhesitatingly restore the foot to its normal position immediately after the operation, and I have been indorsed in this procedure by no less an authority than Dr. Lewis A. Sayre, of New York. The space between the tendons, no doubt, will fill with blood, but when the operation is done with perfect asepsis there is no danger of suppuration, and the blood remaining in the cavity goes to make up new material for splicing out the tendon. I have always operated in this way and have every reason to be perfectly satisfied. The best arguments in any discussion are solid facts. I have never seen any failure of union of the tendons when correction, and even over-correction, of the foot has been immediately made; my opportunities for observation in my own cases and those of others have been abundant during the

past thirty years, and I may safely say that I have never heard of a failure where the operation was skilfully performed. Nothing is gained by leaving the foot in its abnormal position for a few days after tenotomy; it only endangers the necessity and enhances the difficulties of a second operation.

As to the different appliances used to retain the foot in its normal position, many are good, some are indifferent and a host are worse than useless. Of course, different appliances must be used for the various forms of talipes. At present I shall deal only with talipes *equino varus*, the most frequent form of club-foot. To retain the normal position of the foot after thorough tenotomy,

FIG. 1.—Patient walking, showing the feet everted by Spiral Rotator.

FIG. 2.—Patient sitting, showing flexibility of the Spiral Rotator.

plaster of Paris has been used, but it has not proved a success, as it is liable to break and crumble; it is heavy, clumsy and apt to soften. Proper application of adhesive straps after tenotomy proves very successful and many of my cases have made complete recovery with this simple dressing alone.

Even after successful tenotomy and correction there still exists a strong tendency to inversion of the feet, which is almost as unsightly a deformity as the original trouble, and tends to produce a relapse. To remedy this obstinate difficulty I devised, in the sum-

mer of 1880, an appliance which I term the spiral rotator. It is made of flexible spiral spring shafts, attached to a pelvic belt at their upper ends and to the soles of the shoes at the lower ends. When this is properly fitted and applied to the patient, his feet and limbs can be rotated to any desired angle. While wearing it the patient is able to assume any desired position without interrupting the automatic action of the instrument.

It seems to be overlooked by many surgeons that in a great majority of cases of talipes *equino varus* the entire limb is rotated inward, rotation taking place in the acetabulum. This is the result of partial paralysis of the gluteus maximus and quadratus femoris—outward rotating muscles of the thigh—and contraction of the sartorius, semitendinosus and other inward rotating muscles. Many have wasted their time in trying to effect eversion with appliances placed wholly below the knee, and have had as much success as the man who tried to lift himself by his boot straps.

This instrument is now being extensively used in this country and Europe. During my last trip abroad I had the pleasure of seeing it in use in several of the leading hospitals in England, Ireland, France and Switzerland.

The *British Medical Journal* of February 12, 1881, says:

This apparatus has been devised by Dr. Gregory Doyle, of Syracuse, N. Y., to remedy the persistent inversion of the foot, which often remains after operations on club-foot, especially talipes *equino varus*. The spiral rotator may be also used in educating pigeon-toed children to walk properly.

The *International Journal of Medicine and Surgery*, of January 8, 1881, in speaking of it, says:

Dr. Doyle's appliance already enjoys great popularity, and we find it well described and illustrated in the *Polytechnich Journal* of Berne, Switzerland, and, at the same time, highly recommended as a very practical appliance, and one which will soon be in universal demand.

The Philadelphia *Medical Times* of December 18, 1880, says:

In applying this apparatus the pelvic and thigh bands are secured, when, if the case be one of varus, the shoe is to be rotated once inward, the foot is then placed in it and fastened by lacing. It will at once be seen that the constant tendency of the spring will be to uncoil itself into its original position, and in doing this it must carry the toes outward. In valgus the action would be reversed. It is a force exerted gently, constantly and coaxingly, awake and asleep, and, if increased power be required, the shoe can be rotated twice or three times before it is applied to the foot.

A great advantage obtained by its use is the fact that it in no wise interferes with either the motion of the leg or the action of any muscle, save the one that it is intended to antagonise. Its tendency to straighten itself as a whole would, in a slight degree, raise the anterior part of the foot, and to that extent benefit even an equino. As I have just said, it does not act with much force upon the medio-tarsal joints, yet its applicability to very young children is great in its favor, as it can thus be used as a continual assistant to manipulation. As the hands of the surgeon cannot always be in service, and as the mother will not do this more than fifteen minutes during each day, it will be seen that a force acting steadily throughout the remaining twenty-three and three-quarter hours will prove no mean accessory. Such a splint applied even during the first week of a child's life could do no harm. By the time that three months have passed, and the child is ready for tenotomy, it will be found that no operation will be necessary, save the section of the tendo-achillis.

For pigeon-toed cases this spiral rotator would be most perfect in its action, and the principle could be employed with advantage on any limb which is deformed by rotation on its long axis.

The inventor has used it for torticollis, and also employs it after division of tendons in varus and equinus. I like the mode of action of the spiral and shall certainly give it a full trial.

It is now fourteen years since I devised the spiral rotator. Its uniform success and popularity in the great hospitals of the world has given it a permanent place in the armamentarium chirurgicum. It is the only instrument yet devised that will automatically and successfully rotate the leg outward or inward, while the limb is in an extended or flexed position. Even to this day I hear of orthopedic surgeons seeking some means to rotate their patient's limbs after operation on talipes. If they will consult the transactions of the American Medical Association for 1880, they will there find a full description of it, supplemented with illustrations.

The reason many club-feet are not completely and permanently corrected is that the people often tire of the treatment and become impatient and neglectful in following out the surgeon's instructions. They must remember that there is no "time table" to go by in these cases, and also that the old proverb, "The way the twig is bent the tree's inclined," is very appropriate in the treatment of deformities. If the feet are kept in their normal position sufficiently long for nature to rebuild the deficient muscles and joints, satisfactory results will be obtained.

For the benefit of orthopedic surgeons I would state that Messrs. George Tiemann & Co., 107 Park Row, New York, make

the spiral rotator, and they can be had with the spiral extending from the hip to the foot or to the garter only. Many prefer the latter for appearance sake, but the former is more flexible and allows greater freedom of motion.

307 West Genesee Street.

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## A FEW CASES OF TRUE PELVIC CELLULITIS—A PLEA FOR MORE THOROUGH PELVIC SURGERY.[1]

By ELY VAN DE WARKER, Syracuse, N. Y.

It is not many years since, under the stimulus of what was then called progress, that the term "pelvic cellulitis" was denied a place as a condition of disease. It was regarded as a phantom, the product of half knowledge, if not of ignorance.

After holding absolute sway as the leading factor in pathology of the female pelvis, according to the best authority of the time, it was deposed and actually driven out of respectable literature by the pelvic surgeon. By the fingers of the laparatomist it was demonstrated beyond all doubt that what had been frequently regarded as an inflammation of the cellular connective tissue, was but an adhesion of near parts due to an inflammatory exudate, or a disease of the tubes and ovaries while the cellular structure remained intact. This condition was found so frequently that the existence of collections of pus in the pelvic connective tissue was regarded as rarely, if ever seen, and that such collections of pus were in the Fallopian tubes, or in peritoneal spaces shut in by adhesive exudate, or designated by the collective and uncertain name of "pus sacs."

All scientific men must admit that this was a true advance, and that a vague and erroneous theory of pelvic inflammation was overthrown. It is positively a fact that the term "pelvic cellulitis" was used in a most unscientific and even ignorant way. By it was explained all forms of pelvic adhesions, exudates and pelvic fixations and masses not evidently due to neoplasms. This was cleared up by the pelvic surgeon. It was the revolt of the man of facts against the despotism of the man of theory. But to one who used facts as a mental search-light after truth it was but the exchange of one form of despotism for another, more arrogant and aggressive than the first.

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1. Read at the Twentieth Annual Meeting of the American Gynecological Society, Baltimore, May, 1895.

The pelvic, tubal or ovarian extirpator was intolerant of the very term of cellular inflammation. Peritoneal and tubal disease simply took the place of cellular disease as the one and ever-present agent of pelvic inflammation. Here the salpingotomist, after all his triumphs, rested and became, like the theorist whom he displaced, an obstacle to advancement. Established error gave way before the logic of the facts that he had demonstrated. Had he stopped there the advance would have been borne without a regret ; but he did more. He obliterated the very idea of cellular inflammation as a cause of pelvic disease, and brought the term under such contempt that one who had regard for his reputation as a scientific man and a safe diagnostician among the body of the profession hesitated to admit its possibility.

After the performance of untold thousands of pelvic sections for the cure of pelvic inflammatory conditions, a vast number of which must have been useless and harmful, the more observing among this group of surgeons became aware of the fact that many of their patients were not cured, and were even made worse. Among them were numerous cases where enormous tubal accumulations clearly indicated the operation. Masses of adhesions reformed and uterine fixation recurred, or was not relieved.

After vaginal hysterectomy became well established and a comparatively simple operation, the mysterious obstacle in the way of success was supposed to be the uterus, and the more advanced surgeon proposed in cases where tubal and ovarian disease demanded extirpation to remove the uterus also as the really offending and now useless organ.

The facts of the pelvic surgeon had also lapsed into theory as narrow as the one that he had displaced and equally at fault as an explanation of the total phenomena of pelvic inflammation. There are evident indications that the crude operation of tubal and ovarian extirpation, as a general operation in pelvic inflammation, is becoming obsolete and that the future line of surgical relief will come from the direction of the hysterectomist.

The reaction began to revive the old idea of pelvic cellulitis. It was the old theory, but seen in a new light. It was a crystallization out of the mass of crude logic and obliquely observed facts of the old authors. But it is now a well-defined and scientific term. We know what it is as well as what it is not. Limited in this way it is a positive advance in our knowledge of pelvic inflammation, and broadens the etiological factors of pelvic disease. * * * *

These cases are selected out of many as having an illustrative value upon several points involved in this paper, and not in any sense as proof of the condition known as pelvic cellulitis, the existence of which, I take it for granted, no fair-minded and careful observer has the least doubt. One of the misfortunes of surgical specialism is to develop a tendency to mental restriction. One cannot live, think and act in a narrow purview for years without limiting one's mental perspective. It is a matter like this that appears to have entered into this question. The pelvic surgeon seems to have ignored the possibility of any wider area of pelvic inflammation than that which attacks the peritoneum, the tubes or the ovaries.

This was the status of pelvic pathology through a period of splendid surgery and of which I believe we are beginning to see the decline. Here and there a pelvic surgeon, as some of those who make a specialty of exploring the pelvis through an abdominal incision wish to be called, became awake to the fact that there was another pelvic morbid entity than peritoneal adhesions, saculated tubes, cystic ovaries and pus sacs, and that notwithstanding the thorough and aseptic removal of these conditions—and no one with any experience can doubt the propriety of the operation—the patient did not get well. The pain, the neuroses, the pelvic fixations and the disability continued in full force. Several surgeons who candidly admitted these negative results in published articles, and recommend uterine extirpation, which I do not hesitate to admit was a proper conclusion, reached it, in my opinion, upon false premises. They accused the most inoffensive organ in the female pelvis unless it be the seat of malignancy, or of neoplasms—namely, the uterus—of being the offender. It is true that it had become a superfluous organ, and also true that some prompt recoveries followed its extirpation after tubal and ovarian operations. I believe that the failure to cure after the primary operation was due to an associated pelvic cellular inflammation and not to the fact that the uterus was left intact.

In my public and private practice I have had abundant material, have operated liberally and have been often disappointed. Some of the conditions found were very misleading. Enormously distended tubes, ovaries incarcerated in masses of exudate and adhesion, omental and intestinal and uterine adhesions appeared to account for all the condition of the patient, though removal of the offending conditions and prompt recovery from the operation failed to relieve the patient. My experience in Case III. was repeated

several times and always with good results. But this method was tedious, lacked precision, exposed the patient to the danger of secondary infection, and was too limited in its action.

I have always been found in the ranks of the conservative pelvic surgeons, but I became convinced that we did not go far enough and that the uterus ought to be removed—not because it was diseased, but by the removal of the organ we opened up the cellular pelvic spaces and secured the necessary drainage to relieve the cellulitis. Hysterectomy, in my opinion, affords the only route to this area of intrapelvic inflammation.

I am also convinced that it is hysterectomy of a certain kind. Preferably it is through the vagina, but it is not the operation by ligation, but by the forceps or clamp. It makes a wide difference whether all the spaces are occluded and surfaces are brought into contact by sutures and inclusive ligatures, or are left open to free drainage by the removal of the forceps, which secures this result by the retracting issues. The French method is now developing along this line, and if we are correctly informed, with brilliant results.

If I am asked, Ought this method to be practised in all cases, I emphatically answer no. We may have pelvic peritonitis with its resulting evils without associated pelvic cellulitis. We may have many forms of tubal disease imperatively demanding operation unattended with inflammation of the pelvic cellular spaces, and we may have the latter without the former.

What I am contending for is a scientific recognition of the various forms of inflammation, and I believe that we may reach a reasonable differential diagnosis ; not in all cases, for I have a profound respect for the difficulties of pelvic diagnosis by palpation. But in very considerable number we may come to a safe conclusion. I have a simple diagnostic sign, and when I find it I feel very sure of the presence of cellular inflammation. In this tissue, pelvic or elsewhere, inflammation may extend by continuity into any part made up of like histological elements. We have inflammation in the broad ligament extending into the iliac fossa laterally, and downward through connective tissue spaces into the vaginal septum, and through the pubo-sacral areolar process to the lateral surfaces of the vagina. (Savage.) In these locations the infiltrated cellular spaces can be brought up between the finger in the rectum and the thumb in the vagina as thickened indurated and doughy masses. This condition may extend downward an inch or more. It may extend to the lateral surfaces of the vagina, disappearing

to the touch above the limits of the passage and shows on palpation as a slightly elastic mass firmly fixed to the pelvic wall, smooth and glistening, the vaginal rugæ obliterated. I have observed that these lateral extensions reach downward farther than those situated in the recto-vaginal wall, reaching in some instances nearly to the vestibule. This condition is a true cellulitis and indicates and is concurrent with cellulitis higher up in the pelvic space; but is not associated with pelvic peritonitis or salpingitis or oöphoritis.

While this vaginal cellulitis has been described, I have not seen it referred to as an index of the character of the primary pelvic inflammation. Unless existing in a very marked degree, it cannot positively be detected by vaginal examination alone, but by combined vaginal and rectal palpation. We must remember, however, that there is no reason why pelvic peritonitis and cellulitis may not coëxist. Having this possibility in view, the symptom I have just described could prove the intercurrence of cellular inflammation.

When this is well established I believe that thorough surgical treatment requires hysterectomy as well as the older operation of removal of tubes and ovaries.

404 Fayette Park.

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# Society Proceedings.

## BUFFALO ACADEMY OF MEDICINE.

*Meeting held October 9, 1894.*

REPORT OF THE COMMITTEE ON HYGIENE TO INVESTIGATE THE WATER, ICE AND MILK SUPPLIES OF BUFFALO.

Chas. G. Stockton, M. D., *Chairman.*

(1) Influence of our harbor and its connecting canals upon our water supply, by P. W. VanPeyma, M. D., *Chairman of Sub-committee.*

Several months ago the committee on sanitation reported progress. A brief review of this first report naturally precedes a rehearsal of what has since been done.

The report stated that a comprehensive plan had been formulated, and that the work of the committee was as yet uncompleted. The contamination of the Niagara river from the water of the

harbor and of the Buffalo creek and Hamburg canal was considered, and reference made to the facts that the harbor receives water from the Buffalo creek, the latter a receptacle of direct sewage from a portion of the city, and also in free communication, by means of the Ohio basin and Clark and Skinner slips, with the Main and Hamburg canal. The Hamburg canal being practically a continuation of the Erie canal and this again connecting with Buffalo river by means of the Commercial slip, as well as with the harbor through Peacock, Erie and Niagara slips.

The report included those of Drs. Bissell and Krauss, and of Drs. Hill and Krauss, regarding the condition of Niagara water; also that of the board of public works, stating the times when Bird Island pier inlet had been opened. It included, also, statistics obtained by Dr. Hopkins from the report of the state board of health. It referred to the cleaning of the new reservoir, and the turning off of the water supply from the public schools. The regular and frequent examination, by the health department, of the water supply was recommended; and the disinfection of the excreta of typhoid fever patients was urged.

Since the presentation of this report the committee has thought well to divide the remaining work; and as a sub-committee of one the speaker reports as follows upon the questions which were assigned to him:

An interview has been had with the city engineer regarding the feasibility of establishing a separate sewer system for surface water. The opinion of the engineer was that the expense would be altogether too great.

An effort was made to determine the population of the several districts having separate sewer systems. No tables exist giving these facts; but, based on the vote of the section, about 30,000 people live in the district sewering into the Buffalo creek and Hamburg canal.

Regarding other districts, it was found that the Bird avenue district sewer opens into the Swan street trunk sewer. The Hertel avenue sewer opens into the Erie canal; while all the rest of the region north of Scajaquada creek opens into the Niagara river about one mile below the opening of the trunk sewer. At various times in the past, attempts have been made by means of floats and the taking of levels, to determine the direction of the currents in the various slips mentioned. The observations have been so few in number, that the results are inconclusive. It is, however, settled

that the currents vary, and that at times as the result of freshets, they are actually reversed. Regarding the southern part of the city, it is admitted, by those in position to know, that during freshets the sewage is forced backwards. There appears, however, to be no remedy for this, except that proposed by the board of public works, namely, to reverse the flow of sewage in this section, and then pumping it into the trunk sewer.

The report of Dr. Bissell and that of Dr. Hill, regarding the condition of the Niagara water during the preceding months, are appended.[1] It will be seen that the examinations have been regularly and frequently made, and that, on the whole, the condition of the city's water supply is satisfactory. Drs. Hill and Bissell are entitled to praise for the systematic and careful examinations which they have prosecuted. It need hardly be recommended, in conclusion, that the department of health continue its good work.

BUFFALO. October 8, 1894.

*Dr. P. W. Van Peyma:*

Dear Doctor: These analyses show that there has been but very little variation in the quality of the city water during the months covered by these reports. There has been a slight increase in albuminoid ammonia during the Summer, corresponding to the increased vegetable growth. Animal life, as shown by the microscope, has been very scanty and only such forms have been present as frequent clear running water. The water, as a whole, has been in *good* condition during the period covered by these reports.

Respectfully,

HERBERT M. HILL, *City Chemist.*

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(2) *a*, Jubilee Water Works. *b*, Lake water and the influence of other cities on our water supply, by Wm. C. Krauss, M. D., *Chairman of sub-committee.*

JUBILEE WATER WORKS.

Between the years 1830 and 1835 a stock company was formed and a charter granted to Messrs. Gorton, Howell, Justin, *et al.*, to supply the village of Black Rock with water for domestic purposes. Black Rock at that time contained a population of 4,000 to 5,000 inhabitants, and the question of a pure water supply was an important one, as wells had been sunk fifty to seventy-five feet without obtaining any water and hundreds of dollars had been spent to no better advantage. The discovery of the springs south-

1. See table at the end of report.

east of the village, now at the corner of Auburn and Delaware avenues, led to the formation of the stock company with a franchise granted by the Legislature of the State of New York to lay pipes and to control the land lying five feet on each side of the mains, as long as these were in active use.

A bountiful supply of pure cold spring water piped into every part of the town was hailed with the greatest enthusiasm and a Black Rock jubilee was celebrated in a becoming manner, so much so that the name of the corporation was changed to the Jubilee Water Works Company. This company afterwards disposed of its interest to the Parish Tract and commissioners were elected to superintend and manage its affairs.

The water was conducted through wooden mains—the ones nearest the springs having a diameter of ten inches—to wells, better cisterns scattered throughout the village. These were about five feet in diameter and the covers were five feet below the surface. They were so arranged that when filled the supply would be cut off and no more water would enter the cistern until pumped empty. These cisterns have been gradually abandoned and filled up, until today there are perhaps thirty to thirty-five in use, the number diminishing as the water is piped into the houses or the Buffalo City water substituted. Having a fall of but fifteen- and one-third feet, the water could be piped only into the first stories of the buildings.

On the annexation of Black Rock to Buffalo certain concessions were demanded and granted, one of the most important being the right to elect commissioners and to preserve the autonomy of the Jubilee Water Works. On several occasions the City of Buffalo has attempted to condemn this water supply, but chemical analysis has always shown its superiority over the Buffalo water supply.

The present condition of this water supply is as follows: Two reservoirs are situated near the corner of Auburn and Delaware avenues and one reservoir on Amherst street. But thirty to thirty-five cisterns and pumps remain and not over 250 families are supplied at present, the number diminishing with each succeeding year. These families live on Amherst, Peters, Howell and Pacific streets and the upper end of Hertel avenue. The rates per annum are $4.00 for one-story house, $5.00 for one and one-half-story house, $6.00 for two-story house and $10.00 for saloons and business places.

Houses not supplied by the city water and lying in the Jubilee

Water Works territory are obliged to pay water taxes to the Jubilee company for the use of the cistern water.

The present commissioners are Messrs. Shepard, Esser and Argus of Black Rock, and Mr. Philipbar as superintendent.

Whether or not the citizens who used the Jubilee water during the typhoid epidemic were immune from the infection, would be difficult and almost impossible to say. If during and preceding the epidemic they had abstained entirely from using or drinking Niagara water, or from coming in contact with typhoid fever patients or from using milk and produce coming from the infected district—in other words, if they and their Jubilee water had been quarantined for a sufficient time previous to the outbreak, and cases of typhoid fever had occurred in various parts of the district,—then it would be safe to say that in all probability the Jubilee water contained the typhoid bacilli. But as these conditions did not exist no definite conclusion can be drawn. It is only fair to say that the Jubilee water was less exposed to contamination, and, therefore, less liable to have been infected than the Niagara river water.

## INVESTIGATIONS OF TYPHOID FEVER OUTBREAKS DURING THE YEAR 1893 IN THE CITIES SITUATED ON LAKE ERIE.

The question whether the recent typhoid fever epidemic and the many isolated cases of typhoid occurring from time to time in this city could be attributable to the infection of Lake Erie through the sewage of the lake ports is an important one and likely to become more so as these cities increase in population. The sewage of Cleveland, Dunkirk, Toledo, Erie, Sandusky, Ashtabula and Detroit is emptied, without any treatment, into the waters of Lake Erie; some of it in the small bays tributary to the lake, some just off shore and some ten miles out from shore. In other words, not to speak of garbage, street cleanings, etc., the excrement of nearly 1,000,000 human beings is dissolved daily in the headwaters of our natural reservoir, and not until very recently was any attempt made by individual consumers in Buffalo at purification.

Perhaps the greatest disease-producing germ in human excrement is the Eberth typhoid bacillus, a germ whose pathogenetic qualities are as universally recognized and accepted as the existence of the germ itself. The viability of this bacillus is notorious, its most favored medium being polluted water, and it is endowed by Nature to withstand the extremes of heat and cold. Of itself very

motile and favored with a current of four to five miles per hour, it could very easily navigate from one end of the lake to the other, and, alas for Buffalo ! it would invariably start from the other end.

An epidemic of typhoid fever breaking out in any of the lake ports, the excreta being thrown into the sewers and thence into the lake, the danger to Buffalo might and would be very great. Desirous of ascertaining the condition of affairs, letters were accordingly addressed to the health officers of these cities asking for the number of typhoid fever cases occurring during the year 1893, the number of deaths and the disposition of the excrement of such patients. Replies were received from three cities only, and these are herewith appended :

THE CITY OF CLEVELAND, O.,
DEPARTMENT OF POLICE, PUBLIC HEALTH DIVISION,
March 22, 1894.

Wm. C. Krauss, M. D., Buffalo, N. Y. : The number of reported cases of typhoid fever, 1893, were 281. Deaths from said cause, 153.

Respectfully,

E. L. DORAN, *Sec'y.*

Estimated population is 325,000.

CITY OF DETROIT HEALTH OFFICE,
March 28, 1894.

Wm. C. Krauss, M. D., Buffalo, N. Y. : We have no trouble with typhoid fever here, no more cases in a year than would be reasonably expected, and it has never been epidemic.

The excreta and urine of typhoid patients are disinfected at once, and buried, and *never* allowed to run into the sewer.

Will you kindly inform me of the salaries paid the Health Commissioner and health officers in your city, also the number of sanitary inspectors employed by the Department of Health, also salaries paid inspectors ? Please answer by letter, not by printed report, and at earliest convenience.

Yours respectfully,

D. McLEOD, M. D., *Health Commissioner.*

Estimated population, 300,000.

HEALTH DEPARTMENT, CITY OF ERIE,
ERIE, Pa., June 11, 1894.

Dr. Krauss : Until recently the Erie physicians have been very negligent in reporting cases of typhoid fever, so we have no authentic record of the number of cases which have existed in the city. In the

year 1893 there were but fourteen deaths in the city from that cause. Any additional information will be cheerfully furnished.

Yours very truly,

H. E. FLINT, M. D., *Health Officer.*

Estimated population, 40,000 to 50,000.

It is very evident from these letters that typhoid fever cases are not generally reported to the boards of health, and in the City of Cleveland the large ratio of deaths is due, no doubt, to the fact that the recording of these cases is not obligatory. Perhaps the failure of the health officers of Toledo, Sandusky, Dunkirk and Ashtabula to respond to my letters is due to the fact that no record is kept of typhoid fever.

The information thus gained is, therefore, very unsatisfactory, and the objects for which this investigation was undertaken are in part defeated.

The city bacteriologist has, to a considerable extent, aided me in this enquiry by examining the lake water at the inlet pier, and some from the south shore of the lake. On March 16, 1894, two specimens were examined, taken from the inlet pier in the river, which revealed 124 colonies per cubic centimeter, none of which were of the typhoid bacillus. The examination of the lake water never disclosed any germs of typhoid.

*December, 1893*—Number of water examinations, 1 ; average number of colonies of bacteria to Cc., 477.

*January, 1894*—Number of examinations, 2 ; average number of colonies of bacteria, 258.

*February*—Number of examinations, 2 ; average number of colonies of bacteria to Cc., 184.

*March*—Number of water examinations, Niagara, 5 ; average number colonies to Cc., 203 ; Bird Island inlet, 4 ; average number colonies to Cc., 26,499.

The typhoid bacillus was isolated from Bird Island inlet water from sample taken March 16, 1894.

*April*—Number of water examinations, 5 (two samples being taken from reservoir) ; the average number of colonies to Cc., 252.

Special examination for typhoid gave negative results.

*May*—Number of examinations, 5 (two being from reservoir and one from pumping station) ; average number of colonies of bacteria to Cc., 164.

All examinations for typhoid gave negative results.

*June*—Number of water examinations, 14 (four from reservoir, two from pumping station, three from 46 Delaware avenue, five from Lafayette square); the average number of colonies to cc., 206.

All examinations for typhoid gave negative results.

*July*—Number of examinations, 19 (seven from 46 Delaware avenue, three from pumping station, nine from reservoir); average number of colonies to cc., 202.

All samples examined for typhoid gave negative results.

*August.*—Number of examinations, 26; ten from 46 Delaware avenue, twelve from reservoir, four from pumping station); the average number of colonies of bacteria to cc., about 200.

All examinations for typhoid gave negative results.

*September*—Number of examinations 22 (nine from 46 Delaware avenue, eight from reservoir, five from pumping station); average number of colonies of bacteria to cc., about 232.

All examinations for typhoid gave negative results.

These results are highly satisfactory and gratifying, but let us not forget that eternal vigilance is the price of safety. Who can tell at what moment an epidemic may break out in one of the lake cities, and the typhoid germs carried along with the lake currents to the inlet pier and pumped into the water mains of this city? The danger may not be great or alarming in this year of grace, 1894, but in 1904 or 1914, if the lake cities increase in population as they have during the last decade or two, and nothing done to prevent the pollution of Lake Erie—by sewage, garbage, street sweepings, etc.,—the immaculate purity of Niagara water will be apt to suffer and along with it the cities on the banks of the Niagara river, which, perhaps, by that time will bear the name of greater Buffalo.

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(3) Pumps, wells and privy vaults by JOHN H. PRYOR, M. D., *chairman of sub-committee.*

Your sub-committee on wells and privy vaults was instructed to collect information concerning the number of wells and privy vaults in the city and their location. An investigation with that object was carried on for some months with the aid of the city authorities. Arrangements were made by which the police department reported by precincts the number and location of privy vaults existing in each and the street department of the Board of Public Works reported the number and location of wells. The

investigating agents were the patrolmen, who reported to the captain of the precinct and the foremen of gangs of garbage collectors. When the reports were received by the superintendent of police and the superintendent of streets, they were forwarded to the health commissioner and later transmitted by him to the committee with a communication included in this report. In regard to the report as to the number of wells, it must be said that the information is undoubtedly incomplete and only approximately correct. It is valuable, however, in that the location of a large number is known. The great proportion of privy vaults and wells are confined to a district bounded by Seneca, Michigan and Ferry streets and Fillmore avenue.

Since January, 1892, a large number of privy vaults has been abolished and the effort to remove them is exerted whenever practicable or just. When the privy vault becomes a nuisance it is reported and abated. This investigation has furnished the health department with valuable information, from which deductions may be drawn to guide future action and the effects of privy vaults upon public health may be carefully studied.

It is doubtful whether many of them, especially the sealed vault, should be declared a nuisance. The possibility of the contamination of the water supply in certain localities cannot be considered now, as the returns from the police department do not contain remarks on sanitary condition or surroundings.

When the privy vault cannot be condemned as a nuisance, the Board of Health in certain instances is not justified in closing the same.

Among the poor and in unsewered regions radical measures would cause unnecessary hardship and give rise to reasonable objections. After careful inquiry relating to the action of the Board of Health in this matter and consideration of the dangers of contradistinction to individual rights, your committee refrains from making any suggestions and views. The progress made by the Board of Health is most commendable. Time, the extension of municipal improvements and careful sanitary supervision will gradually and safely obviate this possible source of infection. The presence of a large number of public and private wells in this city must be regarded as dangerous and a constant menace to the public health. Many so-called private wells are not so in fact. Instances are known where several families get their water supply from the same well. Fortunately public pumps are almost a thing of the

past. Only a few remain and they should be closed and undoubtedly will be as soon as evidence can be furnished upon which to condemn them. During the past two years the examination of many specimens of well water has demonstrated that over one-half of them are bad and many others are recorded as on the danger line. Repeated examinations often show that the amount of contamination increases and gradually the well water called "fair" becomes "bad."

The plan pursued by the Board of Health is as follows: Chemical and bacteriological examinations of the water are made, and if the result shows sufficient contamination the well is condemned and closed. In this way the number of wells is constantly being diminished. Your committee learns that attempts at progress in this direction are met by determined opposition, and the power of the Board of Health to interfere with alleged private rights is often questioned and combated. The question is not alone, Shall any person be allowed to drink water which has been pronounced detrimental to health, but, Shall a supply of contaminated water which may be used for drinking purposes exist? We are concerned with the cause of infection and its annihilation. Pure water can be obtained, and individuals who prefer drinking unhealthful water should be deprived of the dangerous privilege by stopping the supply. It will be remembered that the vast proportion of wells in this city is located in a district supplied by Niagara river water. At present frequent chemical and bacteriological examinations of the water supply are a constant safeguard against infection and a guaranty of its purity. This intelligent supervision cannot be properly extended to numerous wells and, therefore, private and general protection must be inadequate. It is established as a sanitary fact that wells in a city are a constant source of danger and one that is most easily obviated. Their existence in large numbers encourages the development of infectious foci, which inevitably escape the vigilance of the health department until their character is made manifest by illness.

The water in a private well may be wholesome today, suspicious tomorrow and poisonous the next. Wells must be regarded as easily contaminated and a possible source of infection, and the reason considered why in most instances they should not be immediately abolished. In answer it may be stated that the water may be pure and no other water supply convenient. Such cases exist, and the only wise plan to pursue, it seems, will be to

keep them under surveillance and allow them to exist while safe and necessary. In regard to those pronounced wholesome and in use, where the city supply may be obtained, there appears to be two methods which may be pursued. First, a policy may be adopted requiring frequent examinations and tolerance while below the danger limit. Second, condemnation and closure; in other words, the supply abolished. One will secure partial prevention and the other complete. The profession desires and will cordially support a crusade against wells and their increase or introduction in those districts supplied by Niagara river water should be discouraged. Another and more systematic and comprehensive investigation should be made and a complete list of wells and their location obtained by the health department. The water from each should be carefully and frequently examined and wherever consistent with judgment they should be abolished immediately.

Part of the labors of the committee has been to ascertain the cause of the occurrence of epidemics and sporadic cases of typhoid fever in this city. Your sub-committee would report that no agency appears where so direct and tangible an influence in the causation of endemic and sporadic cases of that disease as infected well water. There is ground for the belief that an investigation of the relation between the contaminated well water and isolated cases of typhoid fever would furnish important facts to uphold that statement. Quite recently striking evidence of the part played by infected well water in the causation of typhoid fever has been collected. The facts relating to the cause of the Orange street outbreaks of typhoid fever are so interesting and appropriate that they are included in this report.

DEPARTMENT OF HEALTH, OFFICE HEALTH COMMISSIONER,
BUFFALO, N. Y., October 6, 1894.

*Dr. John H. Pryor, Buffalo, N. Y.:*

Dear Doctor: I have caused an inspection to be made of the premises No. 114 Orange street, and the inspector reports as follows:

"Upon inspection I find that five of John Dannhauser's children have typhoid fever out of the nine members of the family. One of these is a daughter, who lives at 407 Madison street. All the members of this family drank of the water from the well, although the father and two of the sons did not drink over a glassful of the water, and these three, with the mother, are the ones who are not sick. There is also a young man, by the name of Paul Derringer, who boarded with the Dannhausers, and who drank the water, and now has typhoid and is at the Buffalo General Hospital. At 112 Orange street lives Geo. Finsen, and

out of the twelve members of his family six drank the water out of the well at 114 Orange street, and three of these, who drank the water, are now sick with typhoid fever. None of the six who did not partake of the water are sick. In conclusion, out of the sixteen who drank the water from the well upon 114 Orange street, nine now have typhoid fever. These sixteen people are the only ones in the neighborhood who drank the water out of the well, as far as I could ascertain."

August 28, 1894.

Yours very respectfully,

ERNEST WENDE, *Health Commissioner.*

August 25, 1894.

Sample collected from well on premises No. 114 Orange street revealed the Eberth's bacillus typhosus—same responding to all recognized tests. W. G. BISSELL, M. D.

The following communication from the health commissioner contains the results in figures of the investigation.

The list of pumps and wells and their location is embodied in the report, and the report showing the location of privy vaults by precincts is on file in the office of the Board of Health. In conclusion your committee desires to express gratitude for the assistance rendered by the health commissioner, superintendent of police and the Board of Public Works.

DEPARTMENT OF HEALTH, OFFICE HEALTH COMMISSIONER,
BUFFALO, N. Y., September 5, 1894.

*John H. Pryor, M. D., 253 Allen street, Buffalo, N. Y.:*

Dear Sir: In compliance with your request, I beg to inform you that the number of privy vaults reported to this department is 14,199.

Since January, 1892, we have abated 4,845 vaults in this city, and I think we can safely add another 1.000 which have been abated without having been notified by us. The number reported to us as above has been greatly reduced, as some of these were reported early last Spring.

The number of wells reported to us is 235 and 18 Jubilee wells. This number, we believe, is far below the actual number in existence.

Trusting this will be satisfactory, I am, yours respectfully,

ERNEST WENDE, *Health Commissioner.*

The report of the sub-committee was adopted, together with the recommendation that all wells located in districts supplied by Niagara river water should be closed as soon as possible.

(4) Ice supply, by H. E. Hayd, M. D., *chairman of sub-committee.*

The ice supply of the City of Buffalo consists of artificial ice and natural ice. During the last few years a number of artificial ice plants has been developed in the city, but the product is principally used by the manufacturers themselves, although the Arctic Ice company delivers ice to the residents of the east side of Main street and more especially in the immediate neighborhood of their plant. Artificial ice, if properly prepared, is an ideal product. The water must be sterilized and filtered and every precaution taken against subsequent contamination, or germs probably will be found. It is clear, clean and dense, and its density is due to the fact that little or no air enters into its composition. It is much heavier than natural ice. Its refrigerating powers are less, because natural ice melts more easily and faster ; and in this connection it may be said that the Armour Meat Packing company has experimented with artificial ice and found that when it was used in their meat boxes, the temperature would not fall lower than 42° F., while with the natural ice it fell to 38° F. The samples of artificial ice examined in our health department were not absolutely pure, but contained quite a large colony of bacteria, which is no doubt due to the fact that absolute sterilization is a very difficult matter. Not only must the water be sterilized and filtered, but the cans and hands of the workmen, to insure a product without germ life.

However, of all the samples of ice, natural and artificial, examined by Dr. Bissell, of the health department, that of the Arctic Ice company contained the fewest number of bacteria per cubic centimeter.

Of the natural ice about 100,000 tons are used annually in the City of Buffalo, and it is obtained from Lime lake, Silver lake, Chautauqua lake, Cassadaga lake, Lake Erie, East Concord pond, Burlington bay, and Lake Simcoe, Erie canal, Erie basin and Black Rock harbor.

In good ice-producing weather Lake Erie yields a large amount of ice, but owing to our warm winters this source of supply cannot be depended upon. Most of our ice dealers have erected large storage houses on the banks of the interior lakes and get most of their ice from these sources. However, about 8,000 tons of ice was collected in the Lake Erie basin, canal and Black Rock harbor last winter. Of necessity, that collected from the Erie basin, canal and Black Rock harbor must be a dangerous article, since it is contaminated by our outlet sewer as well as the sewage from the South

Buffalo district, which flows down the Buffalo creek. The ice dealers found that ice collected in the basin and harbor was not a very saleable article, because it was vitiated by the oil from the oil refineries which runs into the Buffalo creek.

Ice collected in the lake outside of the breakwater and in the neighborhood of the light house, is a clear and reasonably pure product, but the expense of procuring it, as well as the uncertainty of our winter weather, renders this site impracticable. However, the Buffalo Ice company and L. B. Banks & Co. cut considerable ice in this neighborhood last winter. The Buffalo Ice company cut 400 to 500 tons at the foot of Genesee street and 3,000 tons outside the breakwater, and L. B. Banks & Co. cut in the Coit slip about 500 tons—between the D., L. & W. railroad coal sluice and the N. Y. C. railroad coal docks—and about 1,500 outside the breakwater. However, the ice from inside the breakwater, I am assured by these gentlemen, was used simply to fill the lower tiers of their ice houses and for refrigeration purposes only. Ice was also collected in the Black Rock harbor and in the Erie canal, perhaps 1,500 to 2,000 tons, and I am informed that such ice has been sold for ordinary domestic purposes, notwithstanding the fact that these places were proven last winter to be polluted quarters.

Ice, in order to be an ideal product, must be obtained from a pure and rapidly flowing stream,—in fact, a current of four miles an hour produces the best ice. The temperature must fall rapidly below the freezing point and remain there for some time. Small ponds and quiet bodies of water do not yield fine ice, nor is the ice safe when the water contains a net amount of animal and vegetable matter. The ice used in Berlin, according to Sternberg, is collected from the surface of the lakes and rivers in the vicinity of the city and contained from a few hundred to 25,000 bacteria per cubic centimeter.

Hudson river ice, according to Prudden, six miles from Albany, had an average of 398 bacteria per centimeter, while snow ice or superficial ice had 9,187. Ice lower down the river contained an average of 189 in the transparent ice or ice from the river, and 3,693 in the snow ice. In ice as in water it may be said "that an excessive amount of bacteria is an indication that the water contains a large amount of organic water which serves as a pabulum for microörganisms, and although wet ice or water may be potable, yet Sternberg says that water with more than 500 bacteria to the cubic centimeter may be harmless, it is still looked upon as sus-

picious, and water containing 1,000 bacteria or more is presumably contaminated with sewage and surface drainage and should be rejected or filtered before it is fit for drinking purposes, and I presume the same deductions may be drawn in reference to ice.

Silver Lake is situated in Wyoming County and is about one-half mile wide and four miles long. It is fed by springs entirely, except in the fall and spring, at which time it receives the surface water from the surrounding hills, but is limited as its location is 1,200 feet above that of Lake Ontario. A small creek which flows for a mile or two also empties into the lake. Its banks are clean and dry on both sides and the cottages and enclosures on the lake are well cared for, as the night soil is carefully disposed of. No sewers empty into the lake and only a very few tile drains. For two months in the year the cottages are occupied. The outflow of the lake is 900 cubic feet per minute, and together with the overflow which occurs each fall and spring renders the water subject to healthful change most of the time. The storage ice capacity is 30,000 tons, most of which comes to Buffalo.

Lime Lake is located in Cattaraugus County on the Cattaraugus Hills and is 1,150 feet higher than Lake Erie. It is one mile long, one-half mile wide and is from 40 to 100 feet deep. It is fed by natural springs and has an outlet. The current is pretty strong, and the water is thus changed. There is located on the bank the Cattaraugus County House and a grove and summer hotel. No sewers empty into it and the sewage of the County House is directed away from the lake and disposed of. The ice storage capacity is 100,000 tons, of which 50,000 comes to Buffalo.

Chautauqua Lake supplies Buffalo with a great deal of ice and more particularly last year, as the yield from Lake Erie was very small,—in fact, all our ice dealers have bought and sold Chautauqua ice this year. There are located on the lake three large ice houses, the largest at Mayville with a capacity of 50,000 tons. Another is located close by and a third at Lakewood. The ice from Chautauqua Lake, as seen by the health department's report, is of excellent quality notwithstanding the fact that so many cottages are on the lake.

Cassadaga Lake supplies about 10,000 tons and is principally sold by the Queen City Ice Co.

Burlington Bay last year gave Buffalo about 8,000 to 10,000 tons and from the report made by the health department it is a

very dangerous product and should be excluded from our city altogether.

From Orillia and Barry on Lake Simcoe a small quantity of ice comes and it is of very excellent quality.

Five hundred tons were cut in the Erie canal at Ferry street by Austin McTigue and about 2,000 in Black Rock harbor.

The East Concord pond on the B., R. & P. railroad supplies J. P. Sullivan with about 8,000 to 10,000 tons. The bacteriological examination shows this ice to be heavily charged with vegetable life, and perhaps to a dangerous extent.

I append herewith a report from the health department which shows the number of colonies of bacteria in each sample of ice examined in their office.

DEPARTMENT OF HEALTH, OFFICE HEALTH COMMISSIONER,
BACTERIOLOGICAL LABORATORY,
BUFFALO, N. Y., October 20, 1894.

*Ernest Wende, M. D., Health Commissioner, Buffalo, N. Y.:*

Dear Sir: I have the honor to submit the following report of the bacteriological examinations of samples of ice collected by me October 9, 1894, said to have been derived from the following-named sources and supplied to the City of Buffalo.

I consider the test a fair one, in that nutrient gelatine-agar media was used, it being a fact that the proportionate number of colonies of bacteria which develop in water, and necessarily ice, examinations is much greater where gelatine media alone is used as compared with agar.

Petri dish method—nutrient gelatine-agar media—eight days' count, at room temperature, showing the average number of colonies of bacteria to the cubic centimeter:

Buffalo Ice Co., Silver Lake ice, Builders' Exchange: Lime Lake, 272; Silver Lake, 240; Erie basin, out; Lake Erie, out; Chautauqua Lake, out.

Queen City Ice Co., W. L. Markham, Manager, 159 Pearl street: Hamilton, Ont., 364; Haliburton, Ont., out; Cassadaga Lake, 261; on fifth day, dish accidentally broken.

American Ice Co., 500 Louisiana street: Lime Lake (usual source), out; Chautauqua Lake, 164; Cassadaga Lake, 284; have bought Arctic ice, out.

L. B. Banks & Co., 219 Erie street: Coit slip—simply cut a channel through the ice in this slip to get to the lake—do not use it; Lime Lake, 492; Lake Erie, 316; Hamilton, Ont., out; Chautauqua Lake, out. Propose to cut from Grand River, Dunville, Ont.

Rebstock & Blust, 192 Grace street: Black Rock harbor, out. Buy-

ing at present from the American Ice Co. and the Buffalo Ice Co., the ice used being the same as their supply.

T. J. Nunan Ice Co., 477 Seneca street: Hamilton, Ont., out; Chautauqua Lake, dish destroyed; Lime Lake, 576.

E. Webster, Son & Co., 308 Main street: Lime Lake, 468; Chautauqua Lake, out. Have bought Arctic ice. Propose to use mostly Arctic ice in the future.

Arctic Ice & Storage Co., Fillmore avenue: Artificial ice manufactured by themselves, 116.

Niagara Ice Co., W. W. Webster, 849 and 851 Seventh street: Buys of Banks & Co.; supplies the same ice as they obtain.

Austin McTigue, 96 West Ferry street: Out of business; had about 200 tons; sold this to Rebstock & Blust. Ice came from Buffalo harbor, foot of Ferry street, out.

Jacob Dold Packing Co., William street: Manufactured, 180.

J. P. Sullivan, Excelsior Ice Co., 110 Chicago street: Buying ice at present from American Ice Co.; East Concord pond, out.

A qualitative examination was made of each sample as to the presence of Eberth's bacillus typhosus, by Paretti method, each examination giving negative results.

Most respectfully yours,

(Signed) WM. G. BISSELL.

From this report it will be seen that Buffalo is to be congratulated in having such an excellent ice supply, and its dealers have shown business sagacity in locating their ice houses where a reasonably pure ice can always be obtained. Of all the samples examined only that from Burlington Bay, Hamilton, Ont., could be condemned upon the grounds of having a dangerous quantity of bacteria per cubic centimeter.

Your committee makes the following recommendations:

1. That the Board of Health be requested to make regular stated examinations of ice from all the sources of supply to the City of Buffalo, and that all found to contain bacteria in excess of the recognized limit of safety be condemned.

2 That ice from Burlington Bay be excluded from the city.

3. That the ice collected in the Erie Basin, Erie canal and Black Rock harbor be condemned and should not be used at all, unless it can be proven to the satisfaction of the health department that such ice is never used for potable purposes, or for any domestic purposes, where there may be the slightest possibility of contaminating the food supply.

4. All ice hereafter brought into the city is to be allowed only

after the Board of Health has been satisfied that the water of such place and the location of the storage houses are safe.

5. Your committee also recommends that artificial ice, properly prepared, be used for all domestic purposes.

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(5) Milk supply, by HENRY R. HOPKINS, M. D., *chairman of sub-committee.*

*Presented to the Academy May 14, 1895.*

Mr. President—Your committee on the milk supply of the City of Buffalo would respectfully report:

The state board of health divides the state into eight sanitary districts, following county lines; this is for the purpose of observation, record and study of vital statistics.

Of these districts the Maritime includes the counties of Westchester, New York, Richmond, Kings, Queens and Suffolk—has a population of over three and a half millions, of which over 87 per cent. live in cities.

The seventh, known as the West Central district, includes the counties Cayuga, Tompkins, Seneca, Schuyler, Ontario, Yates, Livingston, Genesee and Wyoming—has a population of over 311,000, of which over 12 per cent. live in cities.

The eighth sanitary district is known as the Lake Ontario and Western, includes the counties Oswego, Wayne, Monroe, Orleans, Niagara and Erie—has a population of over 761,000, of which over 60 per cent. live in cities.

The last report of the state board of health is its thirteenth report. Study of these reveals, with other things, that the mortality of our people is constantly and uniformly influenced by environment and by season. The death-rate of those dwelling in cities is always larger than those living in the country, and this is true in a more particular degree of those under five years of age.

The thirteenth report of the board shows a mortality in the Maritime district of 75,444, being at the rate of 23.37 per 1,000. Of these deaths 33,087 were under five years of age, being 41.2 of the whole number of deaths.

In the West Central district, the whole number of deaths was 4,445 at the rate of 14.29 per 1,000. Of these 561 were under five years of age, being 12.6 of the whole number of deaths.

In the Lake Ontario and Western district, whole number of

deaths was 13,024, at the rate of 17.10 per 1,000. Of these 4,346 were under five years of age, being 33.4 of the total deaths.

In answer to an inquiry at the department of health of Buffalo, we learn that during the year ending September 30, 1894, there were in our city 5,520 deaths. Of this number 2,278 were under five years of age, being 41.26 of the total deaths.

Of the deaths under five years over 39.100 occurred in the three months of July, August and September.

No more important question can claim the attention of the medical profession, or the attention of the general public, than this matter of our enormous death-rate of those under five years of age —this slaughter of innocents—going on from year to year, which rises with each summer to the proportions of a wholesale massacre.

We learn from United States Census Bulletin, No. 378, issued March 19, 1894, that there were on farms and in stables in the United States, June 1, 1890, 16,511,950 milch cows, and that these cows produced during the previous year 5,209,125,567 gallons of milk—315.48 gallons to each milch cow and 83.18 gallons to each inhabitant of the country. The country, in fact, literally flows with milk and honey—milk, the kindly fruit of the earth, and honey, the typical reward of industry.

Medical men are slowly but surely reaching the conviction that the cause of the alarmingly high death-rate of those under five years, who live in cities, as compared with those who live in the country, is to be laid at the door of the milk supply of cities—to the ignorant, careless and fraudulent adulteration of city milk—and public opinion, the result of patient and persevering medical teaching, is aroused, and from time to time makes itself felt in action, in ordinances of the municipality and again in statutes of the commonwealth.

The purpose of this report is to again place on record the convictions of the individual members of the Academy of Medicine, as to the vital importance to our city and state of the lives of our young children, to again call attention of those in authority, and more particularly of those charged with the responsibility of executing our health ordinances and health statutes, to the alarmingly high death-rate of our city dwellers under five years of age, especially during the months of summer.

And just here it may not be out of order to pause a moment to remark the singularly fortunate location of our city as regards the immediate contiguity to the hills and valleys, the abundant

pastures, the endless streams of cool and pure water, the countless farms and dairies of the finest grazing region known and farmed over the entire world—which lies at our very door.

This matchless suburban country surrounding our city in all directions, save our lake front, is penetrated in all parts with an unrivaled system of railroads with well-appointed trains, thus placing each home in our city within an hour's time of some farm or dairy.

Your committee is of the opinion that the high mortality of those under five years of age in Buffalo is not the fault of its location or environments, but must be brought to the doors of the medical profession, whose duty it is to see that public opinion is kept alive and efficient, to the end that all care and diligence be exercised to protect the helpless from selfish, greedy and criminal adulteration of our milk supply.

It is never a pleasant duty to direct attention to the shortcomings of any class of our citizens, and more particularly so when the error involves a question of bad morals, but the lesson of the history of the dairy commission of the State of New York is the lesson of all attempts to supervise and study this question, viz.: that trade instinct may not be trusted to deal honestly in the milk business. State or municipal supervision is absolutely essential to protect the consumer against dishonest adulteration.

The result of systematic examination of milkman's milk by our state authorities, resulted in the arrest of sixty-two milk peddlers doing business in this city in a single season for selling adulterated milk. This is simply an illustration of how trade methods work in the milk supply business. Unquestionably these notorious sixty-two were not the first or the last of their kind.

The reasons for the need of state or other care in the supervision of milk supply naturally fall into two groups—(1) the consumers ; (2) the product.

Concerning the consumers it must suffice to observe that children, and especially those under five years of age, are particularly liable to diseases of various kinds, and that this law of liability increases or intensifies with the youth of the child, and that it is worthy of particular remembrance that as the susceptibility or proclivity of the child increases so the habit becomes general that milk is almost the sole food. Thus two important lines, susceptibility or proclivity to disease and exclusive milk diet, meet and run side by side in our infants and young children and

the resultant appears in the enormous death-rate shown in the mortality statistics of our cities of the class reached—those under five years of age.

Your committee is quite conscious that the foregoing is by no means an adequate statement of the topic, but feels the importance of brevity, that a report should not aim to be a treatise.

We may profitably divide the considerations of the question of city milk and food product into two heads, which we may designate (1) commercial, and (2) professional or scientific. Under the first may be considered the facts which the common observation of lay people have shown to be essential, to the end that milk may be the food that Nature seems to have intended it to be. Such observation long ago established the conviction that healthy milk may only be obtained of healthy cows, grazing at will in well-shaded and abundantly-watered pastures during the months of warm weather, and warmly housed in clean, well-lighted and ventilated stables during the cold months, regularly fed with well-cured hay or fodder, provided with abundant drink of pure water, and also given liberty daily to exercise at will in a suitable yard.

Common observation also abundantly attests that wholesome milk may only be milked from cows that are clean by a milker also clean ; that pollution of milk, rendering it unfit for use, frequently takes place during the milking, by dirt falling from the cow or the milker into the pail.

To make these precautions effective—and all must admit that they are most fundamental and essential—constant supervision and frequent inspection of all farms, stables and herds engaged in city trade is requisite. How formidable a task it is to introduce Listerism into the milk trade of our cities we can get a hint by recalling the effort and agitation and time required to introduce Listerism into our surgeries and lying-in rooms. Howbeit, the never-ending slaughter of our innocents demands of the medical profession the accomplishment of this result. Indications were never more plain and the destructive effects of carelessness and ignorance never more apparent.

Common observation also teaches that milk is a most delicate and sensitive product, requiring most intelligent and careful handling in order to retain its innocence and virtues, its value as a food.

To keep milk free from contamination, from the milking to its delivery to the consumer, is absolutely essential to its wholesomeness ; but this is not enough. Milk must be allowed to cool

promptly, and this requires special treatment. Freshly drawn milk contains a peculiar volatile constituent, which is both offensive to taste and prejudicial to keeping. This must be allowed to pass off, and it is fortunate for the farmer that the processes of cooling and airing may go on at the same time—the conditions favoring one are also favorable to the other.

Listerism of our milk supply also demands that the clean, pure milk, well cooled and aired, shall be placed in absolutely clean cans for transportation to the city ; the sensitiveness and delicacy of the product requires that the hauling to the railroad station be done under suitable conditions, that while waiting at the station for the train that undue exposure to heat or cold be avoided, that conditions of cleanliness and suitable temperature attend the milk during the entire journey from the farm to the ice box of the consumer.

In order to secure the handling and carriage of milk as indicated, there must be, in addition to the inspection and supervision already referred to, the habitual inspection of all vehicles used in the transportation of milk—cars, wagons or carts—backed by the proper authority, to see that the desired results are obtained. Not, as is too frequently the case, that there be either open disregard of law and ordinance, or at least, or at best, only such formal and perfunctory compliance therewith as to fail utterly to accomplish the benign and wise intentions of our law-makers.

Up to this point your attention has been directed to losses or injuries liable to befall city milk, the result of ignorance or carelessness on the part of producers, handlers or dealers ; but we may not close this topic without reference to the sadly inferior quality of milk received by the city consumer, as compared with the well-known uniform characteristics of that product as discovered by examination at its home in the country. It is sufficient to say that systematic testing of city milk by representatives of state or municipality, duly authorised and qualified, has demonstrated over and over again that wholesale watering or other adulteration of milk while passing through the hands of milk dealers was the custom. That such was the case has been the common knowledge of the medical profession and of the laity for generations. In this state the facts were judicially determined and officially announced by the work and reports of our dairy commission created by act of the legislature of April 24, 1884.

Your committee has given the laws of the state and the ordinances of our chief cities and of our city bearing upon this matter

due study and consideration, and from this study heartily congratulates the public upon the intelligence and earnest spirit of appreciation shown by our law-makers, that it is not too much to say that our statutes and ordinances have only to be properly enforced to secure to our people who dwell in cities the inestimable advantage of a pure milk supply.

How thoroughly in earnest the Empire State is, we get an idea by a few brief quotations from the law of April 24, 1884, entitled, An act to prevent deception in sales of dairy products :

No person or persons shall sell or exchange, or expose for sale or exchange, any unclean, impure, unhealthy, adulterated or unwholesome milk, or shall offer for sale any article of food made from the same or of cream from the same.

Violation of this section is made a misdemeanor punishable by fine from $25 to $200 or by imprisonment from one to six months, or by both fine and imprisonment.

No person shall keep cows for the production of milk for the market, or for sale or exchange, or for manufacturing the same, or cream from the same into articles of food in a crowded or unhealthy condition, or feed the cows on food that is unhealthy or that produces impure, unhealthy, diseased or unwholesome milk.

Penalties for the violation of this section are named like those just mentioned.

The execution of this law is placed in the hands of an officer to be known as the New York state dairy commissioner, who is authorized to appoint an assistant commissioner and to employ such experts, chemists, agents and counsel as may be deemed by him necessary.

The sum of $30,000 was appropriated for the purposes of this work, and it was ordered that the commissioner and his agents shall have full access, egress and ingress to all places of business, factories, farms, buildings, carriages, cars, vessels and cans used in the manufacture and sale of dairy products or any imitation thereof ; with authority to open any package, can or vessel containing such articles which may be manufactured, sold or exposed for sale in violation of the provisions of this act, and may inspect the contents therein and may take therefrom samples for analysis.

This law further provided that " The doing of anything prohibited being done, and the not doing of anything directed to be done in this act shall be presumptive evidence of a willful intent to violate the different sections and provisions hereof."

The annual reports of the dairy commissioner revealed a state of facts in the milk supply of our cities amply justifying the expenditure of money—and the policy of the state as indicated by the law of 1884 has steadily grown along the same lines.

Year by year the laws have been reënacted, the powers of the commission have been extended, the appropriation for expenses has been increased to $50,000 per year, the dairy commission has been raised to the dignity and importance of the department of agriculture, and the importance to the public health of a pure milk supply is fully realized, and provision made for that constant supervision and inspection which experience has demonstrated to be indispensable.

Your committee has read and studied the reports of the local agents of the dairy commission—now the department of agriculture —and has conferred with the department chemist, Prof. Miller, and from these several sources receives the same impression—that the uniform condition of our milk supply has been greatly improved; that dilutions and adulterations of milk while in the hands of dealers are now as rare as before they were common, and that this improvement is due to state inspection and to the wholesome punishment of the offenders.

Here it may be noted that the total number of annual deaths in the state last reported, under five years of age, was 41.643. We have seen that of these deaths a large proportion takes place during the three hot months and believe that two-thirds of this number are deaths from preventable diseases, and that in this work of prevention a clean, pure milk supply is an important factor.

With these observations we conclude the considerations of our milk supply from the commercial or lay view point and pass to that more entirely professional in quality.

The consideration of the milk supply from the more professional side brings before us facts of the highest interest and scientific character.

Perhaps it is not too much to say that no discovery of modern times is more potential for the good of man than the finding of the pioneers of scientific medicine that our domestic animals show their near relationship to us in structure and composition by showing a large number of our diseases, and certainly it may be affirmed that medicine today presents no more inviting field for study than the question of the relation of the diseases of the food-bearing animals to the morbility and mortality of man.

The history of medical thought on this subject furnishes an apt illustration of the superiority and priority of the art over the science of medicine, and at the same time and with the same facts also shows how composite and many-sided is the human mind, and how much stronger claim for popular confidence has medicine which gives evidence that it has not only the motive and inspiration of art but the accuracy and thoroughness of detail of science.

The art of medicine has long known that the milk of the cow, the mare, or the mother, might be rendered injurious or poisonous to the offspring or the consumer by reason of unfavorable bodily conditions or mental state on the part of the milk-giver, and the science of medicine is just beginning to learn something of the why and how of this interesting phenomena.

Modern writers teach with positiveness and confidence that the milk of the cow is liable to become the bearer of the infection of the following diseases, known to prevail among our herds: eczema contagiosa, pleura-pneumonia, scarlatina, diphtheria, pyemia, septicemia, milk-sickness or trembles, anthrax, actinomycosis and tuberculosis.

Formidable as is this list, it by no means exhausts the number of the communicable diseases, contagious or infectious, to which the bovine species is subject; and when you extend this thought and include the fact that cats, dogs, fowls, pigs, goats, sheep and horses are in like manner subject to these diseases, or many of them, you get a hint of the practical importance to health, personal or public, of the diseases of the lower animals communicable to man.

Your committee does not propose to trespass upon the endurance of the Academy by attempting to review the rapidly increasing literature bearing upon this entire question, but will confine the consideration to a single disease—tuberculosis; and in the treatment of this topic will take it for granted that tuberculosis is a communicable disease, spreading from man to man, from man to many of the domestic animals, notably the milk cow, and likewise spreading from the domestic animals to man.

That tuberculosis prevails among our herds to an extent not dreamed of, and is almost as important a factor in increasing the losses and expenses of the former as it is in the causation of suffering and death of the human family is an admitted fact.

History seems likely to note Koch's tuberculin as his chief discovery, and has already given tuberculin its position in medi-

cine as a reliable test for the recognition of otherwise latent tuberculosis of the domestic animals. The accuracy and reliability of the tuberculin reaction in the presence of incipient, mild or latent tuberculosis is uniform, and gives the test an importance which can hardly be over-estimated or over-stated.

Your committee is pained to note the over-conservatism of certain medical investigators of this important matter, particularly those of continental Europe, who have hesitated to give scientific authority to the condemnation of animals suffering from slight or localized tuberculosis, holding that the flesh of such might safely be used for food; and, in the case of cows, holding that unless the disease was general, or that the udder was its seat, the milk might be used with safety.

After a careful study of the literature upon this matter, your committee does not hesitate to report that the above-noted opinion is not in accord with the great mass of testimony bearing upon the question; that such conservatism is unwise, and its proposed economy, in effect, will be found wasteful and extravagant.

It would seem that on this point sentiment-taste should be allowed to dictate, and we may safely trust intelligent sentiment to dictate that neither milk nor any product of milk, or meat or any food product of any kind whatsoever, shall be taken from any animal suffering from tuberculosis, and that the tuberculin reaction may be relied upon to determine the presence of the disease, otherwise not demonstrable.

And it would also seem that, ultimately, sentiment and science are to be found in accord on this point as upon most important matters, and we may confidently rely upon investigation ultimately furnishing the reason why food products from animals suffering from tuberculosis are as inimical to public health, as they have always been offensive to intelligent taste.

In connection with this, attention should be called to the argument of James Law, of the faculty of Cornell, in Bulletin No. 65, April, 1894, entitled Tuberculosis in Relation to Animal Industry and Public Health. The entire question is presented there in a thorough and able manner.

This argument does not assume to present the results of any startling discovery or in the main to be based upon new work, but by an intelligent handling of the facts and truths of bacteriology, not subject to dispute, by a wise adjustment of the emphasis appropriate to the various bits of our knowledge, succeeds in

establishing conclusions of the most important and practical character.

Law directs attention to the fact of the two modes of bacterial disease—bacterial invasion and bacterial intoxication—anthrax an instance of the former and diphtheria of the latter. That in anthrax, as in all the bacterial diseases of the first class, the organism was inimical to its host by virtue of its ability to increase and multiply rapidly in the blood and other fluids of the body, to literally swarm in every part of the body, to choke the blood-vessels and thereby rob the tissues and organs of nutrition and also to devour the nutrients of the body, more particularly the bearers of oxygen, and in this two-fold manner prevent the normal nutrition of important parts or of the entire body.

The action or rôle of bacteria in the other class of diseases, known as diseases from bacterial intoxication, differs from the foregoing in important particulars. The method in diphtheria, an instance of disease from bacterial intoxication, gives a good illustration of this class. In this disease it is to be noted that bacteria show a certain effective affinity for given tissues and localities, as the mucous membranes of the throat, mouth, nose and larynx. That once seated in a certain spot the disease shows but slight, if any, tendency to spread, but following the habits of plants, sends down roots into the soil and lifts up branches and leaves upon the surface thereof, but in the main continues at the spot where it would seem to have been planted.

However, as a result or rather as a resultant of the life and growth of the pathogenic bacteria in the tissues, certain chemical substances are produced, which products are soluble in the fluids of the body and thereby pass into the circulation.

These substances called toxines are poisonous—in some instances frightfully poisonous—and their continued elaboration in the system and their continued poisonous effects upon various tissues and organs of the body constitute the essentials of the disease.

Tuberculin is the toxine of tuberculosis, the most important member of the class of diseases produced by bacterial intoxication, the cause of about one-seventh of human morbility and mortality, the most important of the diseases of the domesticated animals and of man and an important factor in the high death-rate of those under five years of age.

The entire rôle of tuberculin in causing and spreading tubercu-

losis may never be known. Sufficient data are at hand, however, to give to this malign substance a most unenviable notoriety and importance.

But recently, experimenters seemed satisfied to be able to assure us that a given specimen of milk was free from the presence of the bacillus of tuberculosis; it would now seem that milk may be free from the bacillus and yet hold in solution a sufficient quantity of tuberculin to make it not only unfit for food for animals or man, but possibly the determining cause in spreading the disease, tuberculosis.

This observation has a practical bearing upon the question of the fitness for food of meat taken from any part of the carcass of an animal suffering from tuberculosis in any form or degree, and a singular significance to the question of the healthfulness of the milk of the tuberculosis cow.

Here it is well to note again the unscientific advice of those who, looking too exclusively at the bacillus of tuberculosis and forgetting or failing to give due weight to the tuberculous toxines, recommend the use of meat or milk from the tuberculosis animals, provided the same be cooked, depending upon the heat to kill the bacillus.

How unscientific and unsafe this advice is, we see when we recall that Koch's tuberculin is a sterile product absolutely free from bacilli, but its short-lived use as a therapeutic agent and its longer and longer use as a diagnostic agent, furnish unmistakable proof that the tuberculosis poisons stimulate and quicken tuberculosis processes and that food containing these poisons is unfit for the use of man or beast.

Your committee therefore reports that it cannot concur in the opinion of those who declare that wholesome meat may be found in the carcass of an animal having tuberculosis, or that wholesome milk may be drawn from a cow so diseased, provided that the udder is not the site of the tuberculosis, but holds the other view that the presence of tuberculosis as revealed by the tuberculin test or the inspection of the carcass should be conclusive evidence that such animals are not suitable sources of food, either of meat or of milk.

During the previous year our state made its first attempt to test with tuberculin the health of milch cows under the direction of the State Board of Health. This examination has not been general, but was confined to parts of seventeen counties, and

26,931 animals were tested, of which number 944 were killed. The result of this examination was to disclose the startling fact that in every dairy of twenty-eight cows will be found one with tuberculosis.

The whole number of milch cows reported in the state by the last United States census is 1,552,373, and assuming that the presence of tuberculosis as revealed by our first year's search is a reliable index of its general distribution, we find ourselves confronted with the horrifying probability that during the last year we have consumed the milk of 55,427 tuberculosis cows.

The bearing of this conclusion upon the mortality of those under five years of age obviously needs no elaboration, no argument.

In order to emphasize the more important facts of this subject, the committee submits the following summary :

(1) That the preservation of the public health is the first consideration of an intelligent community, and that the medical profession is the natural source of enlightenment and action in sanitary affairs.

(2) That the death-rate of those under five years of age who live in cities is an impeachment of the competency of our knowledge of sanitary laws, or of our ability to carry such laws to proper execution and effect.

(3) That the problem of the milk supply of cities is of the first importance, touching all who have or hope to have children, and is perhaps the most important factor in the high death-rate of the young.

(4) That truth, light, honesty, purity, life saving action in behalf of our children is demanded here in Buffalo, in spite of the fact that nature has surrounded us with environs of unsurpassed advantages, more particularly regarding the supply of the great foods,—fresh air, clean water and pure sweet milk.

(5) We would heartily congratulate our citizens upon our state laws and the execution of the same, the work of the New York State Dairy Commission—now the Department of Agriculture—also upon the wise and comprehensive character of the health ordinances of our city, and upon the efficient and able Department of Health. The scope and purpose of these laws and ordinances we consider most intelligent. Their proper execution should be our first and highest duty.

(6) We would also invite the attention of all our citizens to the important character of the relation of the farmer and dairyman to the general welfare, the public health ; but more particularly to the high quality of skill, care and fidelity demanded of him in producing milk for sale or exchange, to the end that such distinguished services be regarded properly and also be rewarded suitably.

(7) That Listerism of our milk supply from country farm to city kitchen is imperatively demanded in the interests of public health.

(8) That a wholesome milk supply for Buffalo is only possible as the result of constant inspection and supervision by trained examiners, in the interests and employ of the public, the scope of the examination to include every factor in the case, theoretical or practical.

(9) That it is of first importance to recognize our present knowledge as to the existence of communicable disease among our domestic animals, and that all light possible should be thrown upon the methods of communication of such disease from man to animal, from animal to animal and from animal to man.

(10) That in the case of the health of milch cows, systematic tests for tuberculosis with tuberculin should be made, and all animals suffering from the disease killed and their carcasses burned or otherwise suitably sterilized.

(11) That as soon thereafter as suitable provision is made for such inspection and tests that the department of health be directed to withhold permit for the sale of milk or any product from the same from cows, unless such animals are duly registered by the proper officer as in good health and free from tuberculosis or other communicable disease.

Respectfully submitted,

CHAS. G. STOCKTON, *Chairman*,
P. W. VAN PEYMA,
W. C. KRAUSS,
J. H. PRYOR,
H. E. HAYD,
H. R. HOPKINS,

*Committee.*

## Table of Water Examinations with Results.[1]

| SOURCE. | Date Collected. | Date Analyzed. | Appearance. | Odor. | Taste. | Reaction. | Total Hardness. | Temporary Hardness. | Permanent Hardness. | Total Residue. | Volatile Residue. | Fixed Residue. | Free Ammonia. | Albuminoid Ammonia. | Chlorin. | Nitrates. | Nitrites. | Phosphoric Acid. | Absorbed Oxygen, 15 minutes. | Absorbed Oxygen, 4 hours. | Dissolved Oxygen. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 High street..... | April 28 | 28 | Faint, Turbid. | None. | Agreeable. | Neutral. | 6.01 | 2.62 | 3.39 | 7.20 | 2.79 | 4.81 | 0.016 | 0.15 | 5.55 | None. | Trace. | None. | 0.15 | 0.21 | 13 20 |
| " " ..... | May 31 | 31 | " | " | " | " | 6.25 | 2.82 | 3.43 | 8.70 | 3.48 | 5.22 | 0.03 | 0.07 | 7.06 | " | None. | " | 0.34 | 0.40 | 10.40 |
| " " ..... | June 28 | 28 | Turbid. | " | " | " | 4.76 | 1.35 | 3 41 | 9.34 | 3.60 | 5.74 | 0.01 | 0.18 | 5.43 | " | Trace. | " | 0.39 | 0.54 | 8.00 |
| " " ..... | July 30 | 30 | Faint. | " | " | " | 5.03 | 1.55 | 3.47 | 6.90 | 3.89 | 3.01 | 0.037 | 0.032 | 5.43 | " | " | " | 0.34 | 0.56 | 10.00 |
| " " ..... | Aug. 29 | " | " | " | " | " | 4.76 | 0.38 | 4.38 | 9.50 | 4.0 | 5.50 | 0.04 | 0.12 | 3.5 | " | " | " | 0.36 | 0.46 | 7.20 |
| " " ..... | Sept. 29 | " | " | " | " | " | 6.30 | 1.53 | 4.77 | 9.98 | 3.25 | 6.73 | 0.03 | 0.14 | 4.21 | " | None. | " | 0.46 | 0.60 | 6.40 |
| Prospect Reservoir..... | June 28 | 28 | " | " | " | " | 4.53 | 0 86 | 3.67 | 9 10 | 5.68 | 3.42 | 0.01 | 0.09 | 5.43 | " | Trace. | " | 0.31 | 0.56 | |
| " " ..... | July 30 | 30 | " | " | " | " | 4.76 | 1.47 | 3.22 | 7 25 | 3 02 | 4.23 | 0.03 | 0.09 | 5.43 | " | " | Trace | 0.38 | 0.57 | |
| " " ..... | Aug. 29 | 29 | " | " | " | " | 4 89 | 0.35 | 4.54 | 10.40 | 5 70 | 4.70 | 0.04 | 0.18 | 3.5 | " | " | None. | 0.64 | 0 66 | |
| " " ..... | Sept. 29 | " | " | " | " | " | 7.21 | 2.51 | 4.70 | 9.34 | 3.37 | 5.97 | 0.04 | 0.15 | 4.91 | " | " | " | 0.30 | 0.47 | |

1, See page 716.

## MEDICAL SOCIETY OF THE COUNTY OF ERIE.

Reported by FRANKLIN C. GRAM, M. D., *Secretary.*

The semi-annual meeting of the Medical Society of the County of Erie was held in the rooms of the Buffalo Academy of Medicine, June 11, 1895, at 10 A. M., the president, Dr. Frederick W. Bartlett, in the chair.

The minutes of the annual meeting were read and approved.

Dr. G. W. McPherson, chairman of the committee on membership, reported favorably upon the following candidates, who were thereupon unanimously elected to membership: Drs. Clara E. Bowen, Evangeline Carroll, Walter N. Kidder, Frank H. Field, Thos. B. Carpenter, Homer J. Grant, Hiram A. Kendall, Lawrence G. Hanley and P. H. Hourigan. The applications of Drs. Lounsberry, Woodruff and Milliner were laid over until the next meeting.

Applications for membership were received from Drs. Amelia F. Dresser, Jacob Miller, C. G. Fisher, Ray H. Johnson and John E. Bacon. Referred to the committee on membership.

Dr. J. B. Coakley, chairman of the board of censors, submitted a verbal report, in which he stated that since the last meeting two cases had been investigated by the board. The first was in relation to Dr. Ralph E. Brooks, of Marilla, against whom an anonymous complaint with no specific charges had been made, and in which case no action had been taken beyond referring the matter to the district attorney. The other was in relation to Dr. C. H. W. King, of 397 Eagle street, Buffalo, who was found to be practising medicine without being registered, as required by law, although he held a diploma from the Buffalo University. The chairman advised him in the matter, and asked the society for instructions what to do with this and similar cases.

Dr. Edward Clark moved to adopt the report, and direct the board of censors to notify the district attorney of all violations of law and request him to prosecute.

Dr. C. E. Congdon moved, in amendment, that the board of censors be authorized to draw upon the treasurer of this society for any amount required to investigate illegal practitioners and to secure the enforcement of the law.

Dr. Clark said the district attorney is paid by the county for doing such work, and if he does not enforce the law the proper thing for this society to do is to turn its attention to the district attorney for his neglect of duty.

The amendment of Dr. Congdon was adopted.

Papers were read on Protection to the Physician, by Dr. Bartlett; Restriction and Prevention of Consumption, by Dr. B. G. Long; and Autobiographies of our Members, by Dr. Gram. In the last-mentioned paper the writer called attention to the fact that this society was incorporated in 1821, and would, therefore, soon be seventy-five years old. He suggested a proper observance of this event, and further suggested that a suitable book be secured in which could be placed biographies of deceased and autobiographies of living members, together with their portraits. In time this would become one of the most valuable books in possession of the society.

Discussion followed the reading of each paper.

On motion of Dr. LUCIEN HOWE, the president was authorized to appoint a committee to take into consideration the proper celebration of the society's seventy-fifth anniversary.

On motion of Dr. W. C. CALLANAN, the secretary and librarian were instructed to send circulars to members, embodying the ideas suggested in Dr. Gram's paper, and requesting them to assist in compiling and collecting such biographies and portraits.

A representative of the Automatic Telephone Company was granted the privilege of the floor to give some information regarding his company.

As the hour for adjournment had arrived, Dr. DUNHAM withdrew his paper, which had been placed upon the program, and the society then adjourned.

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# Progress in Medical Science.

## STATE MEDICINE, PUBLIC HEALTH, HYGIENE AND BACTERIOLOGY.

Conducted by ERNEST WENDE, M. D.,
Health Commissioner of the City of Buffalo, N. Y.

### SYNOPSIS OF RECENT MEASURES ADOPTED BY THE DEPARTMENT OF HEALTH TOWARD THE PREVENTION OF CONSUMPTION.

BY WILLIAM G. BISSELL, M. D.,
Bacteriologist, Department of Health, Buffalo, N. Y.

EVER since medicine became a science the contagiousness of consumption has been a mooted question. At different times in its history the opinions of medical men, stimulated, perhaps, by cer-

tain superstitions of the laity, have tipped the scale on one side or the other, but never has the question been permanently settled the world over. The day has arrived, however, when there is no doubt as to the contagiousness of the disease. Unfortunately, predisposition is constantly confounded with heredity, even by the profession, but a little thought will clear up the subject to any one who is willing to give it. On the 10th inst., the following circular-letter was mailed to the physicians throughout the city :

DEPARTMENT OF HEALTH.
BUFFALO, N. Y., June 10, 1895.

Dear Doctor—You are aware that tuberculosis is strictly a contagious disease and can be prevented, providing the proper sanitary regulations be adopted. Therefore, after June 15, 1895, the department of health, in the interest of the public safety, demands that all cases of pulmonary tuberculosis (consumption) occurring in your practice be reported to this office, whereupon a circular of instructions will be sent to the family or those in charge of such patients, with the object of lessening and preventing the spread of this dire complaint.

Whenever the diagnosis as to the existence of the disease is in doubt, you are most respectfully requested to submit to the bacteriological bureau of this department the sputum of such cases for a bacteriological test, which will be made free of charge. The report of this examination will be sent you by mail.

Yours most respectfully,

ERNEST WENDE, M. D., *Health Commissioner.*

The following blank of directions accompanied the above circular :

DEPARTMENT OF HEALTH.
BACTERIOLOGICAL LABORATORY,
BUFFALO, N. Y.

*Directions for Collection of Sputum for Bacteriological Examination in Pulmonary Tuberculosis.*

Sputum should be collected only in clean, wide-mouthed, well-stoppered bottles, with a capacity of at least four ounces.

Care should be taken that bronchial and not pharyngeal secretion is collected, and the expectoration discharged early in the morning is to be preferred. If the expectoration is scanty, the entire amount discharged in twenty-four hours should be collected.

As the cases are reported to the department by the attending physician, or found to be tubercular by bacteriological examination,

the following circular of instructions is sent to the patient's address, and a full record of the case kept in the department :

DEPARTMENT OF HEALTH,
BUFFALO, N. Y.

*Information for Consumptives and Those Living with Them.*

Tuberculosis, commonly known under the names of consumption, decline, scrofula, wasting disease, lupus and white swelling, is a contagious disease, which means that every new case is contracted from some other case. It is not an inherited disease, nor is it due to "a cold," as once supposed, and these facts furnish the key-note of how to prevent the disease. The cause of tuberculosis is a germ, called the bacillus tuberculosis, and the disease is only produced by it. The germ is commonly found in the sputum (spit) of those having consumption and in the pus (matter) discharged from tubercular sores of all kinds. This tubercular germ finds its way into a healthy person, principally in three ways :

1. Through the lungs.
2. Through the stomach and digestive tract.
3. Through open wounds (sores).

1. *Through the Lungs*—This is apt to occur when an ordinary pocket handkerchief is used by a tuberculous person to receive expectoration (spitting)—a filthy and dangerous habit. When such a handkerchief is opened, the dried expectoration becomes pulverized and is disseminated through the air, from whence it may be inhaled by others as well as by the patient himself, who is likely to suffer from drawing the diseased germs into portions of the lung previously unaffected. Another and most common source of pulverized expectoration is derived from the disgusting habit of indiscriminate and careless spitting, as on the floor of street cars, churches, theatres, large stores, public buildings, etc., and on the ground and sidewalks. The expectoration (spit) becomes dry, mixed with dust, and in this form is carried into the air and blown around, then inhaled into the lungs or swallowed. This spitting habit is dangerous in the extreme and should not be practised.

2. *Through the Stomach, etc.*—This occurs generally by consumptives swallowing their own sputum and by the use of spoons, cups and other articles of the kind which have not been properly cleansed after having been used by a tuberculous person or consumptive. Tuberculous meat and milk from tuberculous cows are also a great source of danger and should not under any circumstances be used.

3. *Through Open Wounds* (*cuts*)—This happens by persons getting tubercular pus (matter) into an open cut or an abrasion on the skin, and is probably the least common of the three usual ways of infection.

During the past ten years, Buffalo, with a population of 250,000, has had 5,166 deaths reported as from consumption.

The probabilities are that this is by no means the entire number due to that disease, as certificates are not infrequently falsified in order that relatives may obtain insurance which they otherwise could not were the true cause of death known.

The means of preventing the spread of consumption rests mostly with persons having the disease. If they exercise proper precautions, which are not difficult nor exacting, they can in a great measure avoid giving the disease to others and yet not be deprived of the society of their friends nor of any of the comforts of life.

Knowing the channels of infection, which have been stated, the necessary precautions can easily be taken.

All sputum (spit) from consumptives should be destroyed and must not be allowed to become dry. A spitting cup or flask containing just enough disinfecting solution (which can be made by adding eight drops of carbolic acid to a half a cup of water, or by dissolving a tablet of bichloride of mercury, such as may be procured at any drug store, in a pint of water.) to cover the bottom of the vessel should be used for expectoration. When out of doors a consumptive should use a pocket spitting flask containing the disinfecting fluid. If this is impossible, a piece of old cotton cloth or water-closet paper should be used to spit into, and such cloth or paper destroyed by fire as soon as possible after using. No piece should be used for more than one expectoration.

Never spit on the floors of street cars, public buildings, stores, etc., nor on the ground or sidewalks, as such sputum becomes dried, is blown about and furnishes the source of danger above referred to. There is little danger from the mere breath of a tubercular patient : the danger lies in the dry expectoration, which contains the contagious or infecting germ.

Kissing consumptives is a positive source of infection, and should be guarded against especially in the case of children. Married people should not sleep together where either are infected. Sleeping in rooms occupied by tuberculous persons is a source of danger, and such rooms should not be used by other persons after having been occupied by consumptives until they have been thoroughly disinfected and all material in them put through the same course. Rooms can practically be disinfected by the use of the fumes of burning sulphur, (using three pounds of sulphur to a room ten feet square and increasing the amount according to the size of the room in proportions of three pounds to each additional 1,000 cubic feet of air space,) the room during the time being tightly closed and allowed to remain so for at least twenty-four hours. The woodwork, walls, wooden parts of bedsteads, chairs, etc., should be washed with a solution of bichloride of mercury (the proportions of which have been given above). For bed springs, etc., a solution of carbolic acid should be used, as mercury will injure the metal.

All dishes, spoons, forks, etc., should be thoroughly washed in boiling water after having been used by a consumptive, and such articles should not be used by any other person in the household until they have been thoroughly boiled.

All meats should be thoroughly cooked and milk sterilized or boiled if it is thought to be from a diseased source.

The bedding and clothing used by a consumptive should not be included in the family wash : such articles should be washed separately, and be thoroughly boiled during the process of cleansing.

ERNEST WENDE, M. D., *Health Commissioner.*

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# Selection.

## CAPE MAY AS A HEALTH RESORT.

BY ALBERT E. ROUSSEL, M. D.,

Assistant Professor of Practice and Clinical Medicine, Medico-Chirurgical College : Consulting Physician to the Temporary Home: Visiting Physician to the Howard Hospital.

AS A SUMMER resident of Cape May for some ten successive years, I have had a fairly good opportunity of judging of its merits as a health resort, more particularly during the summer months.

During this period of time I have been especially impressed by the marked improvement manifested in that very large group of cases that are presumably benefited by a seashore sojourn.

Curiously, however, there has undoubtedly existed a rather widespread impression that the relative humidity at this resort was higher than at some of its more populous rivals.

With the object of obtaining some definite data upon this subject I wrote for and procured the following interesting figures from the chief of the Weather Bureau at Washington.

As will be noticed from the figures, the relative annual percentage of humidity is but 77, as compared with 80 for Atlantic City, and no one monthly average proves an exception to this general rule.

A study of the temperature record is equally interesting. Although the mean annual temperature of Cape May is one and a fraction degrees higher than that of Atlantic City, yet it will be noted that the relative difference is but slightly marked during the summer and autumn months, but, on the contrary, is the most pronounced during the remaining portions of the year, which would

only tend to emphasize the advantages of the Cape throughout the entire year.

This is especially true when we take into consideration the prevailing direction of the wind,—a point of no little importance during the summer season. On account of its insular position, the unwelcome land-breeze is a rare visitor, indeed, a direct northwest wind being alone responsible for its production.

Then, again, the manifest superiority of the magnificent beach, the absence of the particular crowds occasioned by cheap excursions, and last, but not least, the cleanly and well-kept streets, must certainly appeal to those who seek health as well as recreation.

UNITED STATES DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU, WASHINGTON, D. C., April 25, 1895.

MARK W. HARRINGTON, Chief of Bureau.

*Mean Relative Humidity—Percentages.*—Atlantic City, N. J., January, 81 ; February, 79 ; March, 78 ; April, 77 ; May, 80 ; June, 82 ; July, 83 ; August, 83 ; September, 82 ; October, 80 ; November, 79 ; December, 80 ; annual, 80. Cape May, N. J., January, 78 ; February, 77 ; March, 76 ; April, 75 ; May, 77 ; June, 79 ; July, 80 ; August, 81 ; September, 77 ; October, 75 ; November, 73 ; December, 76 ; annual, 77.

*Monthly Mean Temperature.*—Atlantic City, N. J., January, 31.7 ; February, 33.1 ; March, 37.9 ; April, 46.5 ; May, 57 ; June, 66.7 ; July, 72.3 ; August, 72 ; September, 67.2 ; October, 57.1 ; November, 44.6 ; December, 35.6 ; annual, 51.8. Cape May, N. J., January, 34.2 ; February, 35.3 ; March, 39.7 ; April, 48.2 ; May, 58.7 ; June, 68.2 ; July, 73.6 ; August, 73.2 ; September, 68 ; October, 58.9 ; November, 46.4 ; December, 37.6 ; annual, 53.6.—*Medical Bulletin.*

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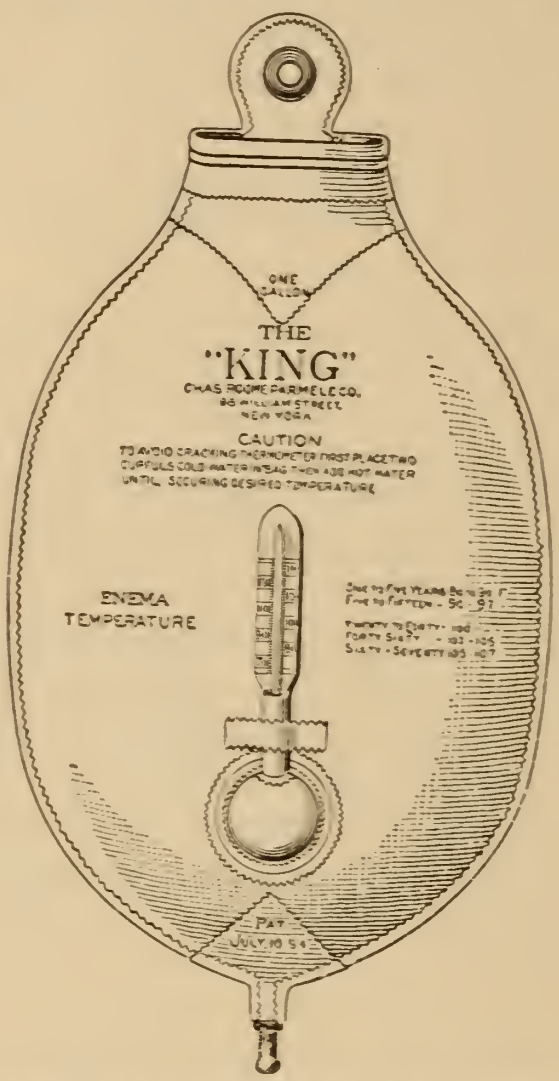
SALIGENINE, according to Lederer (*Med. Bull.*), is of much value in treatment of acute articular rheumatism. It is almost free from drawbacks, and by its solubility in alkalies and its rapid absorption by the bowel may be utilized in other infectious diseases. It may be employed in relatively small does in comparison with salicylic acid. In proportion to the gravity of the case, it is prescribed in the dose of 50 centigrams to 1 gram (about 8 to 15 grains) every hour or two hours. Its action is rapid and stable. On account of the absence of buzzing in the ears, cyanosis, or digestive troubles, saligenine should, M. Lederer believes, be preferred to salicylic acid and its derivatives.—*Medical Standard.*

## New Instrument.

The importance of properly regulating the temperature of enemas and douches is well understood by most clinicians. This applies to children as well as adults. The inconvenience of regulating temperature by ordinary methods has led to the construction of the King gravity syringe, which is here illustrated. With this appara-




THE KING THERMOMETER SYRINGE.

tus, equipped with a double current soft rubber rectal tube, the colon can be flushed with ease, provided the patient is properly postured. It is made of the best quality of rubber, holds one gallon of water, and with the thermometer attachment costs only $2.25. Physicians will readily appreciate the value of this device, known as the King thermometer syringe. The Charles Roome Parmele Co., 98 William street, New York, will supply this syringe through instrument dealers and druggists.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

*EDITORS:*

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business nature, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXIV. JULY, 1895. No. 12.

## OUR SEMI-CENTENNIAL ANNIVERSARY.

WITH this issue the BUFFALO MEDICAL JOURNAL closes the first half century of its career. Were we disposed to avail ourselves of this opportunity we might furnish some reminiscences of a pleasant if not interesting character. But as we propose in our next issue to give a historical résumé of journalism and medicine in Buffalo during the last fifty years, which will be profusely illustrated, we will reserve such comments for that occasion.

It is our object at this time, however, to call particular attention to the fact that our next volume, beginning August, 1895, will contain 960 pages of reading matter, or eighty pages in each monthly issue. It will be printed on handsome book-paper of uniform quality from cover to cover, thus giving our advertisers equal advantage with our readers in respect to quality of paper.

The August number will be as beautiful a specimen of the medical magazine art as can be produced. It will be essentially a Buffalo number, as all its contributions will be from the pens of members of the profession residing in Buffalo, many of which will be illustrated.

Among those who have promised contributions for the August number we may mention Herman Mynter, Roswell Park, Matthew D. Mann, Alvin A. Hubbell, Julius Pohlman, Edward Clark, William C. Krauss, Charles G. Stockton, C. M. Daniels, John A. Miller, John Parmenter, Irving M. Snow, Bernard Bartow, Henry D. Ingraham, F. Whitehill Hinkel, James W. Putnam, Carlton C. Frederick, Ernest Wende, Charles Cary, F. S. Crego and Henry R. Hopkins. Many of these papers will be artistically illustrated.

In addition it will contain a historical résumé of medical affairs in Buffalo during the last fifty years. Besides an account of

medical journals this will deal with hospitals, medical colleges, medical societies and other subjects of professional interest. This article also will be elaborately illustrated.

A large special edition of the August number will be printed, which will be sold at the low price of 25 cents a copy. All who are not subscribers (or if they desire extra copies) should place their orders at once to enable us to determine the number to print. Every physician educated in Buffalo will be interested in this special number as well as all who are residing in Western New York. Lawyers, too, and others not of the medical profession will find much of interest in its columns. Let us have your orders accompanied by the money—25 cents a copy—at once.

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## TOPICS OF THE MONTH.

Around the American Medical Association, at Baltimore, clustered a group of meetings that were of more importance even than the association itself. Of these we may mention, first, the American Academy of Medicine. The meetings of this body are increasing year by year in importance and in influence. At this one, Dr. Leartus Connor, of Detroit, read a paper entitled, Drifting—Who, how, whither? that deserves to be widely read. The *Cleveland Medical Gazette* for June gives an interesting synopsis of this paper, from which we extract the following:

> It is believed that the profession is drifting toward the adoption of a law of consultations somewhat as follows: "Every physician shall be deemed eligible for professional consultation who has shown that he has had such preliminary training as enabled him to comprehend the study of medicine: has fully mastered the elements of medical science and art: has complied with existing laws respecting physicians, and who maintains an honorable reputation in the community in which he resides." Of these qualifications the physicians of his locality shall be the final judges. If these, who know him best, shall indorse him, then shall he be freely admitted to medical organizations and be eligible for consultations.

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Another important one of this group of meetings was that of the American Medical College Association, whose action in extending the curriculum from three to four years we referred to in our last issue. Nearly all the Southern colleges applied for membership. It was stated that but two Northern colleges in affiliation

with the association would enter upon less than a four years' course during the next academic year.

Dr. William Osler, of Baltimore, was elected president of the association, and Dr. Bayard Holmes, of Chicago, secretary. Drs. H. P. Bowditch, of Boston; Brigadier-General George M. Sternberg, Surgeon-General U. S. Army; T. Gaillard Thomas, of New York; N. S. Davis, of Chicago; and R. Beverly Cole, of San Francisco, were elected honorary members.

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The Association of American Medical Editors, too, held its annual meeting on Monday, May 6, 1895, and elected the following officers: President, Dr. George M. Gould, Philadelphia; treasurer, Dr. A. H. Ohman-Dumesnil, St. Louis; secretary, Dr. H. B. Ellis, Los Angeles, Cal. The annual banquet was held on Monday evening, in which the Medical Publishers' Association joined. Dr. I. N. Love, editor of the St. Louis *Medical Mirror*, performed the functions of toastmaster with his usual skill and ability.

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## Personal.

Dr. John B. Murphy, of Chicago, whose intestinal anastamosis button has so justly made him famous, recently has been elected president of the national association of railway surgeons. The *International Journal of Surgery* very gracefully says that, "of the available candidates, no better selection could have been made. Dr. Murphy's election will go far in restoring harmony. It will strengthen the old and attract new blood to the body which has placed him at its head. Dr. Murphy will preside over the various sessions of the national association with his usual dignity, grace and ability."

We cordially agree with our contemporary in its opinion of the distinguished Chicagoan.

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Dr. Horace Clark, of Buffalo, announces that he will have office hours at 21 North street from 1 to 4 P. M.; also at the Morgan building, Niagara and Pearl streets, room 210, from 10 A. M. to 12.30 P. M., and 4.30 to 5.30 P. M., except Sundays. His practice is limited to diseases of the nose, throat and chest.

Dr. Herman Mynter, of Buffalo, sailed Saturday, June 8, 1895, in the steamer "Hekla," Thingvalla line, with his family, for a summer visit to his former home, Copenhagen. He will return early in August to resume his surgical practice.

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Dr. John E. Bacon has located at 149 Franklin street, Buffalo. Hours, 8–11 a. m., 4–6 p. m. Telephone, Seneca 509.

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Dr. William C. Fritz, of Buffalo, has removed his office from 235 East North street to 164 East North street.

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Dr. Walter D. Greene, of Buffalo, has removed from 365 North Division street to 385 Jersey street.

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Dr. Thomas B. Carpenter, of Buffalo, has removed from 660 Main street to 325 Jersey street.

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Dr. Irving M. Snow has been appointed associate editor of the *Archives of Pediatrics*.

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## Society Meetings.

The American Medical Publishers' Association held its second annual meeting at the Eutaw House, Baltimore, May 6 and 7, 1895, with the following in attendance: Dr. J. C. Culbertson, Cincinnati, Ohio; Miss Dora Jones, St. Louis, Mo.; Dr. John C. Le Grand, Anniston, Ala.; Dr. C. F. Taylor, William B. Saunders, Philadelphia, Pa.; Miss Hackedorn, Toledo, Ohio; Dr. F. E. Stewart, Detroit, Mich.; J. MacDonald, Jr., Irving J. Benjamin, Dr. Ferdinand King, Dr. H. P. Fairchild, New York City; Dr. R. W. Lowe, Bridgeport, Conn.; Dr. W. C. Wile, Danbury, Conn.; Dr. H. M. Simmons, Dr. Wm. B. Canfield, Baltimore, Md.; H. A. Mathie, Dr. A. H. Ohman-Dumesnil, Dr. I. N. Love, St. Louis, Mo.; Dr. Laudon B. Edwards, Richmond, Va.; Dr. Hudson, Austin, Texas; Dr. William F. Bartlett, Philadelphia, Pa.; Dr. T. D. Crothers, Hartford, Conn.; Dr. Gilbert I. Cullen, Cincinnati, Ohio; Dr. Henry S. Upson, Cleveland, Ohio; Dr. E. E. Holt, Portland, Me.; J. M. Grosvenor, Jr., Boston; Charles Wood Fassett, St. Joseph, Mo.

Nineteen new members were admitted, and questions of the day affecting medical publishers were profitably discussed.

Beginning with July 1st, a monthly bulletin will be issued for the benefit of members of the association. It is to be edited by Drs. H. P. Fairchild, J. MacDonald, Jr., and Ferdinand King, New York City; Dr. J. C. LeGrand, of Anniston, Ala., and Charles Wood Fassett, of St. Joseph, Mo.

The secretary was authorized to issue, in pocket form, a revised list of medical advertisers.

The officers reëlected were as follows: President, Dr. Landon B. Edwards, of Richmond, Va.; vice-president, Dr. J. C. Culbertson, Cincinnati, Ohio; treasurer, J. MacDonald, Jr., New York City; secretary, Charles Wood Fassett, St. Joseph, Mo. Dr. J. C. LeGrand and Irving J. Benjamin were elected on the executive board.

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A PERMANENT national organization of the various state medical examinining and licensing boards was effected during the American Medical Association meeting, May 9, 1895, at Baltimore, Md. Officers were elected for the ensuing year as follows: Dr. William Warren Potter, president, Buffalo, N. Y.; Dr. J. M. Hays, vice-president, Greensboro, N. C.; Dr. B. M. Griffith, secretary, Springfield, Ill. Dr. Charles McIntire, of Easton, Pa., was appointed chairman of a committee to draft a constitution and by-laws.

The purposes of the association are to aid in establishing a uniform schedule of requirements for all medical colleges and examining boards, and to assist in perfecting methods for higher medical education.

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THE Mississippi Valley Medical Association will hold its twenty-first annual meeting at Detroit, Tuesday, Wednesday, Thursday and Friday, September 3, 4, 5 and 6, 1895, under the presidency of Dr. William N. Wishard, of Indianapolis. A circular has been issued by the secretary, Dr. Frederick C. Woodburn, inviting the medical profession to attend the meeting, and stating that titles of papers should be furnished at an early date. A large and enthusiastic meeting is anticipated.

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THE Mitchell District Medical Society will hold its forty-seventh semi-annual meeting at West Baden Mineral Springs Hotel, West Baden, Orange County, Ind., on Friday and Saturday, July 5 and

6, 1895, under the presidency of Dr. Joseph Eastman, of Indianapolis. An interesting and extensive preliminary program has been published and the usual enthusiasm of these famous meetings promises to prevail.

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The American Association of Obstetricians and Gynecologists will hold its eighth annual meeting at Chicago, Tuesday, Wednesday and Thursday, September 24, 25 and 26, 1895, under the presidency of Dr. J. Henry Carstens, of Detroit. An enthusiastic meeting is already assured. The medical profession is cordially invited to attend the sessions.

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The American Electro-Therapeutic Association will hold its next annual meeting at Toronto, beginning September 3, 1895.

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## Hospital Notes.

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The Buffalo Fresh Air Mission Hospital will be opened July 1st, at Athol Springs, for the reception and treatment of young children suffering from cholera-infantum and other acute and dangerous diarrheal diseases. Last summer a new hospital, with thirty beds, was erected on a beautiful piece of land on the lake shore at Athol Springs. The plans are in accordance with the most approved system of summer hospital construction, and the institution is equipped with every modern appliance for the relief and care of all varieties of infantile diarrheal disorders.

A commodious administration house with diet kitchen and with rooms for the staff, nurses and help is attached to the hospital.

Dr. George J. Haller and Dr. W. J. Howells, house physicians, will reside at the hospital and the patients will be under continual medical surveillance. A corps of trained nurses, (hospital graduates,) under the superintendence of Miss Laura B. King, will have charge of the little patients. The staff, Drs. Snow and Sherman, will make daily visits to the hospital. All physicians are familiar with the beneficial effects of fresh country air and correct diet for acute infantile diarrheas. The physicians of Buffalo are urged to interest themselves in this worthy charity and to send to Athol Springs babies and young children attacked with cholera-infantum and other grave forms of diarrheal disease. Every baby must be accompanied by its mother, or by some adult person who will remain at the hospital during the child's illness.

For obvious reasons no contagious disease, such as whooping cough, scarlatina, measles or diphtheria, can be received. The hospital is on the lake shore, ten miles from the city, and is reached in a half hour by the Lake Shore or W. N. Y. & P. railroads. It is a five minutes' walk from the station at Athol Springs.

As it is especially desired that the little patients shall be sent at once into the country with no delay or vexatious formality for physicians, or parents, or friends, any one wishing to send a patient to the Fresh Air Mission Hospital should go, or telephone, to the Fitch Institute, or to the residence of Dr. Snow or Dr. Sherman, or the sick child may be brought to the University Dispensary, 24 High street, between 10 and 11 A. M. Information and tickets will be furnished at these places.

It should be expressly understood that no charge is made for either baby or mother. All trains for Athol Springs leave the New York Central station on Exchange street.

Physicians are cordially invited to inspect the hospital.

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At the Buffalo General Hospital, Dr. Sidney D. Wilgus has been appointed junior house surgeon and Dr. W. Grant Cooper junior house physician. Drs. N. Gorham Russell and George J. Haller will succeed to the above places October 1, 1895, when Drs. Wilgus and Cooper will become senior house surgeon and house physician respectively.

At the Fitch Emergency Hospital, Drs. Carl C. Mann, B. Ross Nairn and A. E. Dean have been appointed house surgeons. All of the above-mentioned physicians are graduates of Buffalo University Medical College in class of '95.

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At the Hospital of the Sisters of Charity, Drs. Arthur V. Conley, Bion E. Smith and William C. Lewin have been appointed internes after a competitive examination. Dr. Bernard H. Brady has been appointed house surgeon at the Emergency Hospital also as the result of a similar test. These young men are all graduates of Niagara University in the class of '95.

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## Medical College Note.

Jefferson Medical College held its sixty-ninth annual commencement in Philadelphia, May 15, 1895. The class numbered 148, and it is reported that nearly one-fourth of the members were

plucked at the final examination. An explanation is offered that this may be taken as a compliment to the state medical examining and licensing board.

# Book Reviews.

SUGGESTIVE THERAPEUTICS IN PSYCHOPATHIA SEXUALIS, with Especial Reference to Contrary Sexual Instinct. By DR. A. VON SCHRENCK-NOTZING (Munich, Germany). Authorized translation from the German, by Charles Gilbert Chaddock, M. D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine, St. Louis; Member of the American Medico-Psychological Association; Attending Neurologist to the Rebekah Hospital, St. Louis, Mo., etc., etc. One volume royal 8vo, 325 pages. Extra cloth, $2.50 net; sheep, $3.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914-1916 Cherry street. 1895.

This book may be considered very properly as a companion to Krafft-Ebing's recent work, entitled Psychopathia Sexualis. It is true that the views of these two authors are in striking contrast; nevertheless, that is an additional reason why the books should be placed in juxtaposition.

It is more than probable that English medical literature would be quite as well off had neither of these works been translated. The subjects with which they deal are disgusting. It is doubtful, too, whether the class of cases dealt with in this work receive much benefit from treatment. There are underlying factors in their causation that in general thwart therapeutics. Sexual perversion and crime often go hand in hand. The criminal, released after long confinement, often rapes the aged or commits acts of bestiality.

As a matter of fact, however, the translator of this book is entitled to credit for having done his work faithfully and well. He is an expert in diseases of the nervous system and as a consequence is familiar with the class of cases herein treated of. He is absent in Europe at the present time, probably with a view to further enrich his mental storehouse from the granaries of the old world.

A MANUAL OF THE MODERN THEORY AND TECHNIQUE OF SURGICAL ASEPSIS. By CARL BECK, M. D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York City, etc. Small 8vo, pp. 300. With sixty-five illustrations in the text and twelve full-page plates. Price, $1.25 net. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

Bacteriology has so completely revolutionized the details of the practice of surgery that it becomes necessary to issue separate treatises dealing with the technique of surgical cleanliness. This manual is commended as one of the best of its kind; indeed, it is

almost unique, in that it deals with asepsis as contradistinguished from antisepsis. It is, however, true that it is not possible to consider asepsis independently of antisepsis.

The directions that Beck gives for carrying out an ideal surgical asepsis are, in the main, to be commended; and, though it be difficult to adhere to these in every case and under every condition, yet it must be admitted that the ideal must be obtained as nearly as environment will permit. Here comes in the importance of first care to the injured. Much harm is done to wounds by surgical neglect or improper surgical care at first hands. To this end it would be advisable in cities like Buffalo, where the conditions are such as to justify it, to employ an electric railway ambulance in conveying the wounded from the scene of accident or the railway station to the hospital. In case this is done the injured person can receive on board the ambulance adequate aseptic surgical care at first hands. The trolley ambulance is, to all intents and purposes, a temporary hospital supplied with surgeons, nurses and attendants and is equipped with dressings, sterilized water and everything needed for comfort, safety and success.

We think Beck has given too much prominence to iodoform as an antiseptic drug. Its odor is objectionable, it is sometimes poisonous, and its place can be supplied by other agents that are quite as good, if not better.

We commend this book to the young practiser of medicine and surgery as a safe guide.

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MEDICAL GYNECOLOGY. A Treatise on the Diseases of Women from the Standpoint of the Physician. By ALEXANDER J. C. SKENE, M. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital, etc., etc. Octavo, pp. vi.—529. With illustrations. New York: D. Appleton & Co. 1895.

In examining this book one is at a loss to determine just why it has been written. It must be admitted that there is much of interest and instruction between its covers, but what there is in so-called medical gynecology to demand a separate volume of over 500 standard octavo pages it is beyond our ken to discover. The fact is, there is too much gynecological literature of a text-book character put upon the market. However, since the book is before us, we can give the reader an outline of its scope by stating that the volume is arranged in three parts. Part I. deals with the primary differentiation of sex, development and growth during early life, the conditions favorable to the evolution of normal organization and the attainment of a healthful puberty. This involves the discussion of heredity and environment, including care in childhood, mental and physical education and culture, together with necessary care during the transition from girlhood to womanhood.

Part II. treats of the characteristics of sex, the adaptation of structure to function, the predisposition to particular diseases, and the causes of certain affections peculiar to women. Then follow all the functional and organic diseases common to the period of active functional life of women, that naturally fall under the observation and care of the physician.

Part III. discusses the menopause, or the transition from middle life to old age, and the diseases of that period. There is much philosophizing in the first part, and there is much relating to sexual ethics in the second part, while there is in all three parts a display of learning and a talent for teaching which has made the author justly famous.

This is a book that will be appreciated more especially by teachers, and it is presumed that all such will hasten to avail themselves of the opportunity which the publishers have given them to enrich their libraries.

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Eighth Annual Report of the Managers of the St. Lawrence State Hospital for the Year 1894. Albany: James B. Lyon, State Printer. 1897.

This report comprises an octavo volume of 210 pages. One half of the book is devoted to the business interests of the institution, including a special report of the state commissioner in lunacy. From this latter we learn that the salary of the medical superintendent is $5,000, and the salaries of the assistant physicians range from $1,800, paid the first, down to $1,200, paid the fourth and the female assistant physicians. We presume the same salaries are paid in the other state hospitals, and the sums are certainly not extravagant, considering the character of the services rendered and the risks incurred.

The last half of the book is devoted to scientific reports of special cases or conditions. Many of these are illustrated, and altogether it is a most satisfactory report. It differs from the majority of such in its scientific value and may serve as a model.

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The Treatment of Wounds, Ulcers and Abscesses. By W. Watson Cheyne, M. B., F. R. S., F. R. C. S., Professor of Surgery in King's College, London. In one 12mo volume of 207 pages. Cloth, $1.25. Philadelphia: Lea Brothers & Co. 1895.

This small treatise is written by the hand of a master whose knowledge of his work is not surpassed by any living surgeon. He describes in this book the methods which he always employs and which he knows to be efficient and which he believes to be the simplest consistent with certainty and results.

The first one hundred pages are devoted to the consideration of wounds in which detailed directions are given for the aseptic treatment of all injuries—wounds received by accident and wounds

made by the surgeon. In speaking of dressings, on page 77, Cheyne says :

> I cannot but think that a good deal of the sepsis which occurs in wounds and which is attributed to stitches, catgut, etc., is really in part due to the way in which these wounds are sprinkled with dry iodoform and in which iodoform is trusted as an antiseptic after dressing. As the iodoform has no antiseptic power, it follows that when it is kept in bottles, exposed to dust, etc., it will contain living organisms, and when sprinkled on a wound from such bottles will convey these organisms to the wound and this has actually occurred in many cases.

The next fifty-five pages are devoted to the treatment of ulcers, and the final thirty pages to the treatment of abscesses. This is a valuable contribution to the literature of the subjects with which it deals.

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INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Genito-urinary Surgery, Gynecology, Pharyngology, Rhinology, Ophthalmology, Laryngology, Obstetrics, Otology and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by JUDSON DALAND, M. D. (Univ. of Penna.), Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania ; Assistant Physician to the University Hospital ; Physician to the Philadelphia Hospital and Fellow College of Physicians, Philadelphia. J. MITCHELL BRUCE, M. D., F. R. C. P., London, England, Physician to, and Lecturer on, Therapeutics at the Charing Cross Hospital. DAVID W. FINLAY. M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen ; Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary ; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume I. Fifth series. 1895. Royal 8vo, pp. xii.—354. Philadelphia : J. B. Lippincott Co. 1895.

In this volume Dr. Charles Cary, of Buffalo, contributes a lecture on parenchymatous nephritis and diabetes, and Dr. M. D. Mann lectures on menorrhagia due to chronic endometritis and amenorrhea. These comprise the local contributions to this number. Other lectures of importance are, one on irritable bladder, by Clinton Cushion, of San Francisco ; the chemistry of digestion, by Winslow Anderson, of London, and the treatment of lateral curvature of the spine, by Edward H. Bradford, of Boston. The latter is profusely illustrated by twenty-two figures. This volume is a fitting complement to those that have preceded it.

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REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1892–3. In two volumes. Washington : Government Printing Office. 1894.

From this report of the commissioner of education we learn that the total number of pupils in schools of all grades, public and private, during the school year which it covers, was 14,714,933 or

22.69 per cent. of the population. This number, however, does not include the pupils enrolled in evening schools, nor in schools of art or industry, in business colleges, in schools for defective classes nor in the Indian schools. These make an aggregate of more than 300,000 pupils and increase the total in schools to over 15,000,000 pupils. Teachers and educators cannot fail to be interested in this report which embraces every feature of education and contains valuable statistics on all of its subdivisions.

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Twenty-Eighth Annual Report of the State Board of Charities for the Year 1894. Transmitted to the Legislature March 25, 1895. Albany: James B. Lyon, State Printer. 1895.

The annual report of this body always possesses interest to those connected with eleemosynary institutions or those who are in sympathy with their conduct or prosperity. Moreover, the work of this board stands in intimate relationship to state economics; hence it deserves to be fostered by the governing powers, executive and legislative.

This volume contains the report and recommendations of the special committee appointed to investigate the management of the State Reformatory at Elmira. In view of the great interest that is just now taking in this matter, we have no doubt this report will be very widely read.

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Manual of General Medicinal Technology, including Prescription Writing. By Edward Curtis, A. M., M. D., Emeritus Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Medical Department of Columbia College, in the City of New York. Third edition, conforming to the U. S. Pharmacopeia of 1894. Pocket size (Wood's Pocket Manual Series), 245 pages. Price, $1.00.

The little manual above described, having reached a third edition within six years from its first appearance, may justly be classed as a popular reference book. Any attempt to improve the topics belonging to medicinal technology or prescription writing is to be commended. This author has contributed much to that end on these subjects. This edition is made to conform to the U. S. Pharmacopeia of 1890. The size of the book is convenient for the pocket.

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Transactions of the Sixteenth Annual Meeting of the American Laryngological Association, held in the City of Washington, D. C., May 30, 31 and June 1, 1894. Price, $2.50. New York: D. Appleton & Co. 1895.

This volume contains the papers read and discussions had thereon at the sixteenth annual meeting of the American Laryngological Association. They have been published in the *New York Medical Journal*, hence are familiar to the medical profession.

The work done by this association is always of a high order and the year in question furnishes no exception to the rule. Many of the papers published are well illustrated. The book should be in the hands of every physician who practises laryngology.

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IMMUNITY, PROTECTIVE INOCULATIONS IN INFECTIOUS DISEASES, AND SERUM-THERAPY. By GEORGE M. STERNBERG, M. D., LL. D., Surgeon-General U. S. Army, Ex-President American Public Health Association, Honorary Member of the Epidemiological Society of London, of the Royal Academy of Medicine at Rome, of the Academy of Medicine at Rio Janeiro, of the Société d'Hygiene, etc., etc. One volume, 325 pages, 8vo, bound in extra muslin, beveled edges, uniform, with the other volumes of our *Medical Practitioners' Library*. Price, $2.50 : in flexible morocco, $3.25. New York : William Wood & Co. 1895.

No one is more competent to treat of the subjects considered in this book than Surgeon-General Sternberg. He is a practical bacteriologist of the first order as well as a scientific man in training, method and habit.

Sternberg divides his work into two parts. In Part I. susceptibility and immunity are considered. Natural immunity is an interesting question, and is very plainly stated in the opening chapter of this book. Acquired immunity is another branch of the subject that is ably treated here. An extended bibliographical list is added at the close of this part.

Protective inoculations in infectious diseases and serum-therapy are considered in Part II., which is the main portion of the book. In separate chapters, Sternberg considers the several diseases in man and the lower animals in which these inoculations apply. At the present time a growing interest is everywhere obtaining in relation to serum-therapy, especially in diphtheria and cholera, as well as a few other diseases ; hence this book becomes of special interest to the general profession of medicine and is likely to be widely read.

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URINALYSIS, Including Blanks for Recording the Analysis and Microscopic Examination of the Urine. For Medical Practitioners, Life Insurance Examiners and Specialists. Arranged by JOSEPH C. GUERNSEY, A. M., M. D. Philadelphia : J. B. Lippincott Co. 1895.

This book will tend to promote accuracy in urinalysis, the importance of which in diagnosis as well as prognosis and treatment is not easy to estimate. The volume gives a list of apparatus and chemical reagents ; then follows chemical tests in urinalysis ; next the centrifuge in urinalysis, and finally diet. Then follow the record blanks, to the number of 500, which, however, are preceded by an alphabetical index in which to enter the patient's name and page.

The book is unique and will be found of great benefit to both general practitioner and specialist.

A Book of Detachable Diet Lists and a Sick-room Dietary. Compiled by Jerome B. Thomas. A. B., M. D. Price, $1.50. Published by W. B. Saunders, 925 Walnut street, Philadelphia. 1895.

The dietary lists in this book are arranged with reference to (1) albuminuria, (2) anemia and debility, (3) constipation, (4) diabetes, (5) diarrhea, (6) dyspepsia, (7) fevers, (8) gout or uric acid diathesis, (9) obesity, (10) tuberculosis. At the end are a number of leaves devoted to sick-room dietary, that give instructions for the preparation of many articles of food which can be detached and handed to the person in charge. These blanks are an aid to the busy practitioner of medicine; they enable him to economize his time and tend to insure accuracy in carrying out his directions.

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Index of Medicine. By Seymour Taylor, M. D., Member Royal College of Physicians; Senior Assistant Physician to the West London Hospital. In one large 12mo volume of 801 pages, with 35 engravings. Cloth, $3.75. Philadelphia: Lea Brothers & Co.

The author states that his object in compiling this work was to create a handy manual for students in preparing for their final examinations in medicine at the various examining boards. It cannot, therefore, be considered as a text-book, but the author hopes that students may find it a useful supplement to the various treatises on medicine. It is not so much an index as it is a concise volume on the practice of medicine. The author has succeeded in producing just what he intended to create and it merits a wide popularity on the lines marked out.

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Transactions of the Antiseptic Club. Reported by Albert Abrams, a member of the San Francisco Medical Profession. Illustrated. Price, $1.75. New York: E. B. Treat, 5 Cooper Union. San Francisco: Johnson & Emigh. 1895.

This book seems to have been written as a bit of sarcasm on the germ theory of disease. It is a volume that Mr. Tait would enjoy in the extreme and we would advise the author to send him a complimentary copy. Viewed from any standpoint it contains sufficient mirth-provoking humor to prove entertaining to the most enthusiastic bacteriologist as well as the disbeliever in germs as propagators of disease. Let everybody purchase it and enjoy a good laugh.

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Transactions of the Medical Society of the State of North Carolina. Forty-first annual meeting, held at Greensboro, N. C., May 15, 16, 17, 1894. Wilmington, N. C.: Jackson & Bell. 1894.

The transactions of the medical society of the old North state is now, as always, replete with interest. Besides the usual professional papers it contains the report of the state board of health and also the minutes of the meeting of the state board of medical

examiners. It, however, wastes time and space in printing the code of medical ethics. If the money expended in this way had been devoted to binding the book in cloth it would have contributed to a more permanent preservation of a valuable volume.

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La Pratique des Maladies du Cœur et de L'Appareil Circulatoire dans les Hopitaux de Paris. Aide-Mémoire et Formulaire de Thérapeutique Appliquée par Le Professeur Paul Lefert. Paris: Librairie J. B. Bailliére et Fils, Rue Hautefeuille, 19 près le Boulevard Saint-Germain. 1895.

The series of manuals of practical medicine issued by MM. Bailliére et Fils consists of twelve volumes. The price of each volume is three francs. This number deals with diseases of the heart and the circulatory apparatus and gives a résumé of treatment as practised in the hospitals of Paris. It is a valuable little book to possess and is of a size convenient to carry in the pocket.

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Twentieth Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending June 30. 1892. Lansing: Robert Smith & Co., State Printers and Binders. 1894.

The Michigan state board of health is one of the most efficient in the United States, and especially has its secretary attained renown as a sanitarian and as an able executive officer. The scientific character of this report is of a high order. It is a great pity that politics in New York so enter into the question that an efficient secretary, like Dr. Baker, or as Dr. Lewis Balch proved himself, cannot be retained indefinitely.

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Weekly Abstract of Sanitary Reports issued by the Supervising Surgeon-General M. H. S. Volume IX., Numbers 1 to 52. Washington: Government Printing Office. 1895.

This volume comprises the valuable sanitary reports issued by the supervising surgeon-general of the marine hospital service every week during 1894. It is a matter of great convenience to have them bound together in this manner. A voluminous index makes the subjects of easy reference.

All sanitarians and public health officers will be greatly interested in possessing this book.

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## BOOKS RECEIVED.

A Guide to the Aseptic Treatment of Wounds. By Dr. C. Schimmelbusch, Assistant in the Royal Surgical Clinic of the University of Berlin. Preface by Prof. E. Von Bergmann. Translated from the second revised German edition, with express permission of the author, by Frank J. Thornbury, M. D., Lecturer on Bacteriology, University of Buffalo, N. Y., etc. Octavo, pp. xii.—233, with forty-three illustrations. New York: G. P. Putnam's Sons, 27 West Twenty-third street. 1895.

Transactions of the American Association of Obstetricians and Gynecologists. Volume VII., for the year 1894. Octavo. pp. 530. Price, cloth, $5.00; half-Russia, $6.00. Philadelphia: Wm. J. Dornan, Printer. 1895.

The Care of the Baby. A Manual for Mothers and Nurses, containing practical directions for the management of infancy and childhood in health and disease. By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic and School for Graduates in Medicine; Physician to the Children's Hospital, etc. Small 8vo. pp. 392. Price, $1.50. Philadelphia: W. B. Saunders, 925 Walnut street. 1895.

Transactions of the Medical Association of Central New York. Twenty-seventh Annual Meeting, Buffalo, N. Y., October 16, 1894. Buffalo Medical Journal Print. 1895.

The Deformities of the Human Foot, with Their Treatment. By W. J. Walsham, M. B., C. M. Aberd., F. R. C. S., Eng., Senior Assistant Surgeon, Surgeon in Charge of the Orthopedic Department and Lecturer in Anatomy St. Bartholomew's Hospital, etc., etc., and William Kent Hughes, M. B., Lond., M. B. Melb., M. R. C. S., Eng., L. R. C. P. Lond., Orthopedic Surgeon St. Vincent's Hospital; Assistant Surgeon Children's Hospital, Melbourne; Surgical Tutor Trinity College, Melbourne, etc., etc. Extra muslin 8vo. $4.50. New York: William Wood & Company. 1895.

## Literary Note.

Health, Sanitation and Climatology of the Southern States is the name of a quarterly journal that appeared in the beginning of this year. It is edited and published at Washington, D. C., by Dr. Walter C. Murphy. It is a fine specimen of journalism, both as regards its quality and mechanical execution. The April issue contains an illustrated article on the topography, climate and resources of North Carolina, and is written by Hon. Elias Carr, governor. We hope this magazine will attain the success that it so richly deserves.

## Miscellany.

The Doliber-Goodale Company appears in our columns for the first time, in this issue, advocating the special claims of Mellin's food to professional favor. Mellin's food has been long and favorably known as a valuable food for infants, children and adults.

The Crystal Water Company, of Buffalo, announces to the profession, through our columns for the first time, in the present issue, that they manufacture a pure water for table, family and medicinal uses.

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